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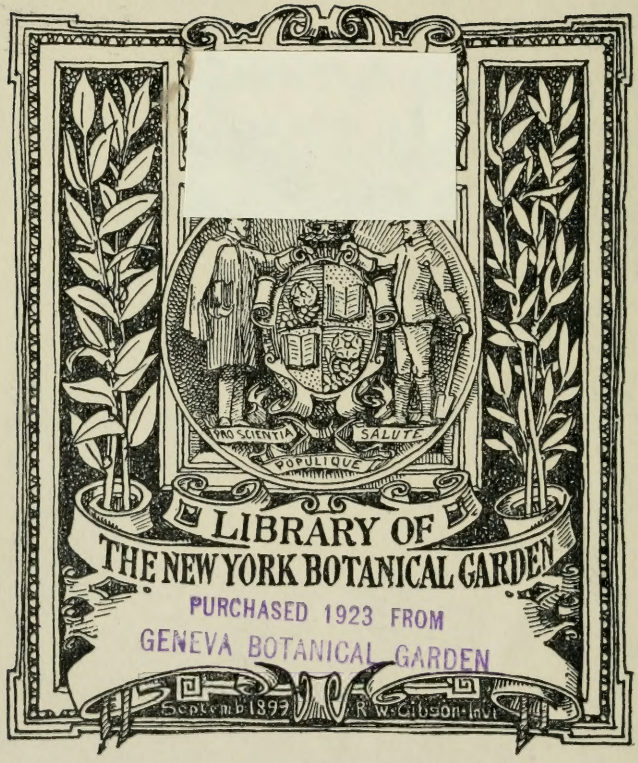
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Contributions

to the

Flora of Siam

Dicotyledones

By

William Grant Craib, M.A.

Assistant for India

Royal Botanic Gardens, Kew

(Repr. from Kew Bull. 1911)

Printed for the University of Aberdeen

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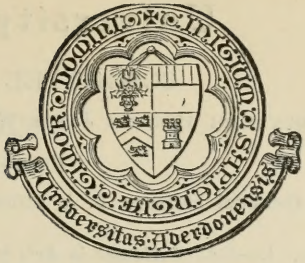

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Dicotyledones

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DICOTYLEDONES.

Since the time of publication in the Bull. Herb. Boiss. (1904–5) by Dr. F. N. Williams of his "Liste des plantes connues du Siam," our knowledge of the Flora of Siam has made great strides. The penultimate part of the Flora of Koh Chang dealing with the Palmae, Lentibularieae and the Lichenes has appeared. As mentioned in Kew Bull. 1911, p. 7, Dr. C. C. Hosseus visited Siam in 1904–5 and made large collections of plants. Since his return to Europe he has published in various continental magazines a large number of papers dealing with various subjects of scientific interest, and a list of those papers—so far as known to the author—which have a direct bearing on the present contribution will be given in an addendum.

It might not be out of place to say a few words here on those papers which the writer has found most useful when compiling the present lists. Probably the most important are to be found in the Beihefte zum Bot. Centralblatt—"Beiträge zur Flora Siams" in vol. xxvii., pp. 455–507 and "Die botanischen Ergebnisse meiner Expedition nach Siam" in vol. xxviii., pp. 357–457. The former gives lists of all the plants of certain families known from Siam, but in the latter the author confines his attention to the plants collected by himself and gives a list of nearly all the plants of his own collection. In both papers the author expresses his indebtedness to various authorities who assisted him in determining the plants. In Engler's Bot. Jahrb., vol. xli., pp. 62–73, Dr. Hosseus gives a list of all the Acanthaceae known from Siam. Most of his plants in this family were determined by the late C. B. Clarke—a recognised authority on Acanthaceae. In the same publication are also to be found "Beiträge zur Flora des Doi Sutäp" (vol. xl., pp. 92–99) and "Beiträge zur Flora von Wang Djao am Mä Ping in Mittel Siam" (vol. xlv., pp. 366–374)—two papers dealing with the general aspects of the flora of the regions. Also in Engler's Bot. Jahrb., vol. xli., pp. 55–61, is a description, accompanied with excellent figures and a full discussion on its affinity with neighbouring genera, of a very interesting new genus of *Rafflesiaceae*, called by the author *Richthofenia*. Reference might be made here to several other papers, but for these the reader must be referred to the list at the end of the present paper.

The present contribution may be regarded as a reprint—with additions—of the papers written by the author and published in Kew Bull. 1911, pp. 7–60 and 385–474. As explained there, the primary idea was to give additions to William's list referred to

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above, and for this purpose the same geographical region is treated of as comprising Siam as in William's list with the exception of Siamese Malay Peninsula, which has been accounted for by Ridley in his "Flora of Lower Siam" published in Journ. Str. Br. Roy. As. Soc., 59, pp. 15–234. As before, all Dr. Kerr's plants are included, whether they had been recorded for Siam in William's list or not. The reason for this was to illustrate the more fully Dr. Kerr's paper in Kew Bull. 1911, pp. 1–6, dealing with the vegetation of Doi Sootep—a paper which was anticipated by Dr. Hosseus in his paper on Doi Sootep mentioned above.

The additional material accounted for here consists chiefly of the continued collections forwarded by Dr. Kerr. One's indebtedness to Dr. Kerr for the magnificent specimens which he continues to send home from a region which is still far from well known from a botanical point of view can hardly be overestimated. Several small consignments have also been received through the Conservator of Forests, Bangkok, from the Phre district collected by Luang Vanpruk. The plants dealt with in the present paper are those received at Kew up to the end of 1911.

Throughout the list references have been given to Hooker's Flora of British India (contracted F.B.I.), to Kurz's Forest Flora of Burma (contracted For. Fl. Burma) and to Collett and Hemsley's paper on the Flora of the Shan States published in the Journal of the Linnean Society. References have also been given to Lecomte's Flore Generale de l'Indo-Chine so far as that work has been published (contracted Fl. Indo-Chine) and to the two papers by Hosseus quoted above—that in Beihefte zum Bot. Centralblatt, vol. xxvii., being contracted Hosseus i., and that in the same publication, vol. xxviii., being contracted Hosseus ii. Various other papers which serve in the writer's opinion to throw light on the species under consideration, *i.e.*, monographs, &c., have also been referred to.

The distribution of the species is taken, except when otherwise stated, from specimens in the Kew Herbarium. Several species are quoted, of which no specimens from Siam have been seen, but in such cases the authority for the record is alone quoted.

The sequence of Bentham and Hooker's Genera Plantarum is followed on the whole and the species are arranged alphabetically under the genera.

POLYPETALAE.

Ranunculaceae.

Clematis smilacifolia, *Wall.*—F.B.I., i. p. 3 : For. Fl. Burma, i. p. 16 ; Williams, Bull. Herb. Boiss., v. (1905) p. 22 ; Fl. Indo-Chine, i. p. 3 ; Hosseus, ii. p. 389.

Chiengmai, Doi Sootep, 500–700 m., *Hosseus*, 297.

Distr. India, China, Tonkin, Malaya.

Dilleniaceae.

Tetracera sarmentosa, *Vahl*, var. **Loureiri**, *Finet et Gagnep.*—Fl. Indo-Chine, i. p. 16.

Bangkok, *Zimmermann*, 74.

Distr. (of var.). Cambodia, Cochinchina, Malay Peninsula.

Dillenia Kerrii, *Craib*, ab affini *D. scabrella*, Roxb., floribus majoribus, pedicellis brevioribus facile distinguenda.

Arbor decidua, ramulis crassis primo breviter adpresse fulvo-pubescentibus mox glabris. *Folia* elliptica, utrinque rotundata sed basi rarissime inaequalia, cuneata, 28·5–30 cm. longa, 14·2–17·2 cm. lata, chartacea vel subcoriacea, supra nervis nervulisque pilis brevibus rigidiusculis parce instructa, subtus costa nervisque primariis fulvo-pilosa, nervulis ut in pagina superiore, nervis lateralibus utrinque ultra 40 ad marginem simplicibus inter se 5–7 mm. distantibus, cum costa supra conspicuis subtus prominentibus nervis transversis subtus prominulis, margine nervis excurrentibus denticulata ; petioli 4·5–6·5 cm. longi, supra valde canaliculati, basi dilatati, ut in costa adpresse fulvo-pubescentes. *Flores* mane expansi (ex *Kerr*), plerumque gemini, ramulis brevissimis ligno anni praeteriti exoreuntes ; pedicelli 1·5–2·5 cm. longi, crassiusculi, densius puberuli, apicem versus bracteola ovato-lanceolata obtusa 9 mm. longa 6 mm. lata instructi. *Sepala* exteriora maxima, rotundata, circiter 1·4 cm. diametro, interiora late elliptica, 1·7 cm. longa, 1·2 cm. lata, coriacea, ciliata, extra adpresse pubescentia, intra glabra, margines apicesque versus parce brevissime pilosula. *Petala* sulphurea (ex *Kerr*), obovata, apice rotundata, basi cuneata, vix stipitata vel interdum in unguem distinctum contracta, 2·5–2·6 cm. longa, 1·4–1·5 cm. lata, utrinque glabra, distincte nervata. *Ovarium* e carpellis 6 constitutum, 8 mm. altum, superne adpresse albo-pubescens ; styli 8 mm. longi, uncinati, glabri.—*Craib*, Kew Bull. 1911, p. 8.

Hills between Muang Prow and Chieng Dao, 600 m., in mixed jungle, *Kerr*, 1046 ; Chiengmai, in mixed jungle on Doi Sootep, 660 m., *Kerr*, 1787.

Lao name, M'San Kweng (ex *Kerr*).

Dillenia pulcherrima, *Kurz*—F.B.I., i. p. 37 ; For. Fl. Burma, i. p. 19 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 16.

Meh Teng, 360 m., *Kerr*, 1063.

Distr. Burma.

Lao name, M'San Luang (ex *Kerr*).

Magnoliaceae.

Talauma Hodgsoni, *Hook. f. et Th.*—F.B.I., i. p. 40.

Chiengmai, in evergreen jungle on Doi Sootep, 660–900 m., *Kerr*, 1098.

Distr. Sikkim, Khasia, Upper Burma.

Lao name, Bun Ta (ex *Kerr*).

Michelia Champaca, *Linn.*—F.B.I., i. p. 42 ; For. Fl. Burma, i. p. 25 ; Williams, Bull. Herb. Boiss., v. (1905) p. 23 ; Fl. Indo-Chine, i. p. 38 ; Hosseus, ii. p. 389.

Chiengmai, Doi Sootep, 900–1140 m., *Kerr*, 1279, *Hosseus*, 480.

Distr. India, Yunnan, throughout Indo-China, Malaya.

Lao name, Chŭm Pi (ex *Kerr*).

ANONACEAE.

Uvaria rufa, *Blume*—Williams, Bull. Herb. Boiss., v. (1905) p. 23 ; Fl. Indo-Chine, i. p. 51.

Chiengmai, in scrub jungle at foot of Doi Sootep, 300 m., *Kerr*, 660.

Distr. Cochinchina, Java.

Uvaria ? sp.

Phre, 156–210 m., *Luang Vanpruk*, 174.

Ellipeia cherrevensis, *Pierre ex Finet et Gagnep.*—Fl. Indo-Chine, i. p. 58.

Chiengmai, in deciduous jungle on Doi Sootep, 300–450 m., *Kerr*, 636—"a few twigs about 45 cm. high from a perennial rootstock."

Distr. Cambodia (Laos, ex *Fl. Indo-Chine*).

Cyathocalyx martabanica, *Hook. f. et Th.*, var. **Harmandii**, *Finet et Gagnep.*—Fl. Indo-Chine, i. p. 81.

Me Yuak Phre, 240 m., *Luang Vanpruk*, 240.

Distr. Laos.

Lao name, Sabanga Dong (ex *Luang Vanpruk*).

Artabotrys burmanicus, *DC.*—F.B.I., i. p. 55 ; For. Fl. Burma, i. p. 32 ; King, Ann. Roy. Bot. Gard. Calc., iv. p. 47, t. 62 ; Fl. Indo-Chine, i. p. 81.

Petchabouri (ex *Fl. Indo-Chine*).

Distr. Burma, Manipur.

Artabotrys siamensis, *Miq.*—For. Fl. Burma, i. p. 31.

Kanburi (ex *For. Fl. Burma*).

Unona discolor, *Vahl*—F.B.I., i. p. 59 ; For. Fl. Burma, i. p. 34 ; King, Ann. Roy. Bot. Gard. Calc., iv. p. 56, t. 74 ; Fl. Indo-Chine, i. p. 63.

Chiengmai, in mixed jungle at foot of Doi Sootep, 330 m., *Kerr*, 1827 ; Phre, 120–180 m., *Luang Vanpruk*, 159.

Distr. India, China, Indo-China, Malaya.

Unona dubia, *Craib*, a speciebus ceteris carpellis 4 tantum distincta.

Fruticulus 45 cm. altus (ex *Kerr*) ; ramuli ad 2·5 mm. diametro, primo tomentelli, demum glabri, cortice rubro-brunneo. *Folia* oblonga, oblanceolata vel oblongo-oblanceolata, apice obtusa vel brevissime obtuse acuminata, basi rotundata vel leviter cordata, 3·6–12·5 cm. longa, 1·5–4·7 cm. lata, supra glabra, subtus molliter pubescentia, rigide chartacea, integra, nervis lateralibus utrinque circiter 8 intra marginem arcuatis supra leviter impressis subtus prominulis ; petioli crassiusculi, 3 mm. longi, tomentelli. *Flores* plerumque solitarii, ex axillis veteribus orti, pedicellis brevibus suffulti. *Sepala* 3, late deltoidea, 2 mm. longa, fere 2 mm. lata, extra fulvo-tomentella. *Petala* 6, 2-seriata, subaequalia, ovata vel ovato-lanceolata, obtusa, 5–8 mm. longa, 4 mm. lata, extra fulvo-pilosula, intra glabra. *Stamina* ∞, filamentis productis truncatis antheras obtegentibus. *Carpella* 4, quorum 1 vel 2 tantum maturantia, dense pilosa, ovulis 5–6 uniseriatis. *Fructus* haud semper torulosus, 1–2 cm. longus, 1·3 cm. diametro, stipite 5 mm. longo suffultus, tomentellus.—*Craib*, Kew Bull. 1911, p. 10.

Chiengmai, in mixed jungle at foot of Doi Sootep, 330 m., *Kerr*, 1207 ; in deciduous jungle, 330 m., *Kerr*, 1848. [In the latter collection the carpels are generally 3 in number.]

According to Kerr the fruit is edible.

Lao name, Noom Wooa (ex *Kerr*).

The systematic position of this plant is a little doubtful. It agrees with *Unona* in everything but the carpels and would appear to be intermediate between that genus with its many carpels and *Monocarpia* with its solitary carpel.

Unona dumosa, *Roxb.*—F.B.I., i. p. 59 ; King, Ann. Roy. Bot. Gard. Calc., iv. p. 57, t. 76 ; Fl. Indo-Chine, i. p. 60.

Near Chantaboon, *Murton*, 82.

Distr. Assam, Malay Peninsula.

Dasymaschalon sootepense, *Craib*, a *D. Blumei*, Finet et Gagnep., foliis tenuioribus longius petiolatis, seminibus longioribus recedit.

Arbuscula ad 7·5 m. alta (ex *Kerr*) ; ramuli primo pilosuli, mox glabri vel subglabri, cortice brunneo vel fusco-brunneo irregulariter striato obtecti. *Folia* oblanceolato-oblonga vel oblonga, apice breviter acuminata, acuta, basi late cuneata vel subrotundata, 9–19·8 cm. longa, 2·5–6 cm. lata, tenuiter chartacea, supra matura glabra, subtus parcissime adpresse setulosa, glauca, nervis lateralibus utrinque 9–10 intra marginem arcuatis cum costa supra leviter impressis subtus prominentibus ; petioli 1 cm. longitudinis vix attingentes, supra sulcati, indumento ramulorum. *Flores* plerumque axillares, solitarii, pedicellis apicem versus leviter incrassatis ad 1·5 cm. longis basi breviter bracteatis et paullo supra basin minute bracteolatis suffulti. *Sepala* 3, deltoidea, acuta, 3 mm. longa, 1·5 mm. lata, extra adpresse ferrugineo-pubescentia. *Petala* ad 4 cm. longa et 1·5 cm. lata, utrinque, sed intra parcius, adpresse pilosula. *Fructus* lomentaceus, ad 6 cm. longus, pedicello circiter 1 cm. longo suffultus, rugulosus, parce adpresse pilosulus ; semina straminea, 1·8 cm. longa, vix 5 mm. diametro, hilo inferiore.—*Craib*, Kew Bull. 1912, p. 144.

Chiengmai, in evergreen jungle on Doi Sootep, 1050–1260 m., *Kerr*, 1364, 1777.

Rauwenhoffia siamensis, *Scheff.*—Ic. Bogor., t. lxx.

Siam (ex *Ic. Bogor.*).

Goniothalamus Griffithii, *Hook. f. et Th.*—F.B.I., i. p. 73 ; For. Fl. Burma, i. p. 42 ; King, Ann. Roy. Bot. Gard. Calc., iv. p. 97, t. 136.

Chiengmai, by streams on Doi Sootep, 660 m., *Kerr*, 1209.

Distr. Burma.

Lao name, S'Bunn Nga Pa (ex *Kerr*).

Mitrephora Maingayi, *Hook. f. et Th.*, var. **Kurzii**, *King*, Ann. Roy. Bot. Gard. Calc., iv. p. 112. *M. vandaeflora*, Kurz, For. Fl. Burma, i. p. 45.

Doi Saket, Ban Sun Pah Suk, 600 m., *Kerr*, 1024.

Distr. Pegu.

Platymitra siamensis, *Craib*, a *P. macrocarpa*, Boerl., foliis longioribus angustioribus basi cuneatis vel subobtusis, pedicellis crassioribus, antheris quam filamenta longioribus, bacca ovoidea, seminibus vix 2 cm. longis 1 cm. crassis differt.

Arbor alta (ex *Kerr*), inflorescentia excepta glabra; ramuli cortice brunneo vel fusco-brunneo lenticellato irregulariter striato obtecti. *Folia* lanceolata, apice acuminata, obtusiuscula, basi cuneata, subobtusa, 5–13 cm. longa, 1·5–2·5 cm. lata, rigide chartacea, supra nitida, subtus subnitida, nervis lateralibus utrinque circiter 12 intra marginem arcuatis supra conspicuis subtus prominulis; petioli circiter 5 mm. longi, supra canaliculati. *Flores* fasciculati, fasciculis ex axillis foliorum delapsorum plerumque ortis; alabastra depresso-globosa, adpresse pubescentia; pedicelli 1 cm. longi, crassiusculi, basi breviter bracteati, apicem versus bracteola parva instructi. *Calyx* 1·5 mm. altus, extra ferrugineo-pilosulus, lobis 3 rotundatis. *Petala* 3 exteriora valvata, satis crassa, circiter 3 mm. longa, 3 mm. lata, extra adpresse breviter ferrugineo-pubescentia, intra glabra, 3 interiora apice valvata, basi aperta, extra breviter adpresse pubescentia. *Stamina* circiter 20. *Ovaria* 2, albo-hirsuta. *Bacca* ovoidea, circiter 7 cm. longa, 5 cm. diametro; semina 8, 1·8 cm. longa.—*Craib*, Kew Bull. 1912, p. 145.

Sriracha, Nawng Kai Ploi, in evergreen jungle, 90 m., *Kerr*, 2125.

Siamese name, Hŭm Chang (ex *Kerr*).

There are no open flowers in the specimens received and the above description is taken from buds.

Anomianthus heterocarpus, *Zoll.*—Fl. Indo-Chine, i. p. 46.

Chiengmai, common, 300 m., *Kerr*, 607.

Distr. Indo-China, Java.

Miliusa cuneata, *Craib*, a *M. sinensi*, Finet et Gagnep., foliis longioribus basi cuneatis, ovulis solitariis recedit.

Suffrutex ad 4·5 m. altus (ex *Kerr*); ramuli primo fulvo-tomentelli, mox puberuli, ad 4 mm. diametro, cortice brunneo lenticellato obtecti. *Folia* oblanceolata vel late oblanceolata, apice acuminata, acuta vel obtusa, basi cuneata, 4–14 cm. longa, 1·5–4·4 cm. lata, chartacea, supra costa tantum breviter pubescentia, subtus primo costa densius fulvo-pubescentia, cetera pilosula, matura molliter puberula, nervis lateralibus utrinque 12–15 intra marginem arcuatis pagina utraque subconspicuis; petioli 3–4 mm. longi, indumento ramulorum. *Inflorescentia* pauciflora, plerumque ex axillis foliorum delapsorum; pedicelli ad 2·7 cm. longi, sub anthesin graciles, postea paullo incrassati, basi minute bracteati et circiter 7 mm. e basi minute bracteolati. *Sepala* 3, deltoidea vel late lanceolata, acuta, vix 2 mm. longa, ad 1·25 mm. lata, breviter ciliata, pauperrime pubescentia. *Petala* exteriora sepalis conformia, circiter 3·5 mm. longa, 0·75 mm. lata, indumento ut sepalis, interiora viridia (ex *Kerr*) 1·2 cm. longa, 6 mm. lata, concava, basi parum sacciformia, intra puberula. *Stamina* circiter 6-seriata, filamentis brevibus. *Ovaria* parce pubescentia, 1·25 mm. alta, stylo 0·75 mm. longo; ovula solitaria, basilaria.—*Craib*, Kew Bull. 1912, p. 145.

Chiengmai, in evergreen jungle on the Doi Sootep, 900 m., *Kerr*, 1837.

Miliusa Thorelii, *Finet et Gagnep.*—Fl. Indo-Chine, i. p. 109.
Chiengmai, in evergreen jungle on Doi Sootep, 900 m., *Kerr*, 1162 ♂, 1834 ♀.
Distr. Laos (ex *Fl. Indo-Chine*).
Working from male material only I enumerated this plant in Kew Bull. 1911 p. 10 as "*Miliusa* sp. n. aff. *M. Thorelii*." After receiving female specimens I identified it as *M. Thorelii* from the description of that species, which identification has been very kindly confirmed for me by Mons. Gagnepain.

Miliusa velutina, *Hook. f. et Th.*—F.B.I., i. p. 87; For. Fl. Burma, i. p. 47; King, Ann. Roy. Bot. Gard. Calc., iv. p. 158, t. 206; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 17; Fl. Indo-Chine, i. p. 112.
Chiengmai, Doi Sootep, 300 m., *Kerr*, 1078.
Distr. India, Burma, Cochinchina.

Orophea polycephala, *Pierre*—Fl. Indo-Chine, i. p. 119.
Muong Pran (ex *Fl. Indo-Chine*).
Distr. Cambodia (ex *Fl. Indo-Chine*).

Menispermaceae.

Pycnarrhena fasciculata, *Diels*, Engl. Pflanzenr., Menisperm., p. 50. *Telotia nodiflora*, Pierre—Williams, Bull. Herb. Boiss., v. (1905) p. 22. *Antitaxis nodiflora*, Gagnep.—Fl. Indo-Chine, i. p. 154; Craib, Kew Bull. 1911, p. 11.
Muong Pran, *Pierre*, 3779; Wai Wan, *Pierre*, 2805.
Distr. Cambodia, Malay Peninsula.

Tinospora crispa, *Miers*—F.B.I., i. p. 96; For. Fl. Burma, i. p. 52; Fl. Indo-Chine, i. p. 132; Diels, Engler Pflanzenr., Menisperm., p. 142.
Ratpura Province (ex *Fl. Indo-Chine*).
Distr. Ceylon, Assam, Burma, Malaya.

Tiliacora triandra, *Diels*, Engler Pflanzenr., Menisperm., p. 62. *Limacia triandra*, Miers—F.B.I., i. p. 100; For. Fl. Burma, i. p. 55; Fl. Indo-Chine, i. p. 146; Craib, Kew Bull. 1911, p. 11.
Petchabouri River (ex *Fl. Indo-Chine*).
Distr. Lower Burma, Malay Peninsula, Cambodia, Cochinchina.

Limacia velutina, *Miers*—F.B.I., i. p. 100; For. Fl. Burma, i. p. 55; Fl. Indo-Chine, i. p. 144; Diels, Engler Pflanzenr., Menisperm., p. 215.
Near Muong Pran (ex *Fl. Indo-Chine*).
Distr. Burma, Malaya, Cochinchina, Philippines.

Diploclisia glaucescens, *Diels*, Engler Pflanzenr., Menisperm., p. 225. *D. macrocarpa*, Miers—Fl. Indo-Chine, i. p. 140, partim. *Cocculus macrocarpus*, Wight—F.B.I., i. p. 101.
Chiengmai, in evergreen jungle on Doi Sootep, 900 m., *Kerr*, 1836.
Distr. India, S. China to New Guinea.

Cocculus hirsutus, *Diels*, Engler Pflanzenr., Menisperm., p. 236? *C. villosus*, DC.—F.B.I., i. p. 101; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 17; Fl. Indo-Chine, i. p. 143; Craib, Kew Bull. 1911, p. 11.

Near Muong Pran (ex *Fl. Indo-Chine*).
Distr. Trop. Africa, India, Burma, S. China.

Cocculus laurifolius, *DC.*—F.B.I., i. p. 101 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 17 ; Diels, Engler Pflanzenr., Menisperm., p. 239. *C. laurifolius*, var. *bariensis*, Gagnep., Fl. Indo-Chine, i. p. 141.
Me Yuak Phre, 240 m., *Luang Vanpruk*, 236.
Distr. S.E. Asia.

Cocculus sarmentosus, *Diels*, Engler Pflanzenr., Menisperm., p. 233.
Bangkok (ex *Diels*).
Distr. E. Asia, Mascerene Is.

Pachygone dasycarpa, *Kurz*—For. Fl. Burma, i. p. 56 ; Fl. Indo-Chine, i. p. 152 ; Diels, Engler Pflanzenr., Menisperm., p. 242.
Kanburi, *Teysmann*, 5993.
Distr. Indo-China.

Pachygone odorifera, *Miers*—Diels, Engler Pflanzenr., Menisperm., p. 242. *P. nitida*, Pierre ex Gagnep.—Fl. Indo-Chine, i. p. 153 ; Craib, Kew Bull. 1911, p. 11.
Som-reap, *Godefroy*, 687.
Distr. Indo-China.

Stephania glabra, *Miers*—Diels, Engler Pflanzenr., Menisperm., p. 272. *S. rotunda*—F.B.I., i. p. 103 in part ; Craib, Kew Bull. 1911, p. 11, *non* Lour ; nec *S. rotunda*, Fl. Indo-Chine, i. p. 148.
Chiengmai, annual shoots from a large, round, perennial, woody tuber, usually lying on rocks, in evergreen jungle on Doi Sootep, 750 m., *Kerr*, 641.
Distr. India, Assam, Burma.

Stephania hernandifolia, *Walp.*—F.B.I., i. p. 103 ; Fl. Indo-Chine, i. p. 147 ; Diels, Engler Pflanzenr., Menisperm., p. 279.
Chiengmai, Doi Sootep, 720 m., *Kerr*, 748.
Distr. Asia, Australia.

Stephania Pierrei, *Diels*, Engler Pflanzenr., Menisperm., p. 276, forma.
Siam (ex *Diels*).
Distr. Cochinchina, Mekong.

Cissampelos Pareira, *Linn.*—F.B.I., i. p. 103 ; Fl. Indo-Chine, i. p. 149 ; Diels, Engler Pflanzenr., Menisperm., p. 286.
Petchabouri River (ex *Fl. Indo-Chine*).
Distr. Tropics.

Cyclea sp. n. ?
Chiengmai, Ban Pong, in mixed jungle, 330 m., *Kerr*, 1940 (♀).

Berberidaceae.

Mahonia nepalensis, Craib, Kew Bull. 1911, p. 11, *vix* DC.
Chiengmai, Doi Sootep, 1500–1650 m., *Kerr*, 1107.
The specimens collected by Dr. Kerr are in fruit only, but evidently they do not belong to typical *M. nepalensis*. The fruit is much nearer to var. *Leschenaultii*, but in the absence of flowering material I hesitate to refer it to this variety.

Nymphaeaceae.

Nymphaea cyanea, *Roxb.*
Chiengmai, 300 m., *Kerr*, 1396.
Distr. E. Bengal.
Lao name, Dauk Pan (ex *Kerr*).
For the determination of this plant and for the Crucifer collected by Dr. Kerr I am indebted to Mr. J. R. Drummond.

Nelumbium speciosum, *Willd.*—F.B.I., i. p. 116; Fl. Indo-Chine, i. p. 162.
Chiengmai moat, 300 m., *Kerr*, 1362.
Distr. E. Asia, Australia—often cultivated.
Lao name, Booa (ex *Kerr*).

Cruciferae.

Arabis hirsuta, *Scop.*—Hosseus, ii. p. 390.
Chieng Dao, banks of Meh Ping (ex *Hosseus*).
Distr. Temperate regions.

Cardamine hirsuta, *Linn.*—Fl. Indo-Chine, i. p. 170; Hosseus, ii. p. 390.
Chiengmai, Doi Sootep (ex *Hosseus*).
Widely distributed.

Erysimum cheiranthus, *Linn.*?—Hosseus, ii. p. 390.
Chieng Dao, bank of Meh Ping (ex *Hosseus*).
Distr. Temperate regions.

Nasturtium montanum, *Wall.*—F.B.I., i. p. 134.
Chiengmai, 300 m., *Kerr*, 1697—"a garden weed."
Distr. India, China, Tonkin, Java.

Capparidaceae.

Polanisia viscosa, *D C.* *Cleome viscosa*, Linn.—F.B.I., i. p. 170; Fl. Indo-Chine, i. p. 173.
Chiengmai, 300 m., *Kerr*, 1846.
Distr. Tropics and subtropics.

Gynandropsis pentaphylla, *D C.*—F.B.I., i. p. 171; Fl. Indo-Chine, i. p. 175.
Bangkok, *Zimmermann*, 4; Chiengmai, 300 m., *Kerr*, 1904—"fruit eaten."
Distr. Common in Tropics.
Lao name, Pŭk Som Sien (ex *Kerr*).

Niebuhria decandra, *Gagnep.*, var. angustifolia, *Gagnep.*, Fl. Indo-Chine, i. p. 176.
Muong Pran (ex *Fl. Indo-Chine*).

Niebuhria siamensis, *Kurz*, For. Fl. Burma, i. p. 59; Fl. Indo-Chine, i. p. 177.
Ratbouri Province (ex *For. Fl. Burma*).

Capparis echinocarpa, *Pierre ex Gagnep.*—Fl. Indo-Chine, i. p. 195.
Petchabouri, *Pierre*, 4016.

Capparis flavicans, *Wall.*—F.B.I., i. p. 179 ; For. Fl. Burma, i. p. 63 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 19. *C. cambodiana*, Pierre ex Gagnep.—Fl. Indo-Chine, i. p. 194.

Lakon, 300 m., *Kerr*, 1010 ; Ratbouri, *Teysmann* ; Paknampo, *Witt.*

Distr. Burma.

Capparis foetida, *Blume*—Fl. Indo-Chine, i. p. 184.

Paknampo, *Witt*, 6.

Distr. Cochinchina.

Capparis horrida, *Linn. f.*—F.B.I., i. p. 178 ; For. Fl. Burma, i. p. 62 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 21 ; Fl. Indo-Chine, i. p. 185.

Meh Ngat, 420 m., *Kerr*, 1035.

Distr. India, Burma, Malaya, Philippines.

Capparis micracantha, *DC.*—F.B.I., i. p. 179 ; For. Fl. Burma, i. p. 61 ; Fl. Indo-Chine, i. p. 186. ? *C. roydsiaefolia*, Kurz, For. Fl. Burma, i. p. 61 ; Fl. Indo-Chine, i. p. 196. *C. sp.*, Williams, Bull. Herb. Boiss., v. (1905) p. 24, pro parte.

Paknampo, *Witt* 3, 4 ; Bangkok, *Zimmermann*, 63, *Schomburgh*, 107.

Distr. Burma, Cambodia, Malaya, Philippines.

Capparis sepiaria, *Linn.*—F.B.I., i. p. 177 ; For. Fl. Burma, i. p. 66 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 21 ; Fl. Indo-Chine, i. p. 191.

Chiengmai, mixed jungle at foot of Doi Sootep, 300 m., *Kerr*, 609.

Distr. India, Malaya, Philippines.

Lao name, Lep Meau (ex *Kerr*).

Capparis siamensis, *Kurz*, For. Fl. Burma, i. p. 63 ; Williams, Bull. Herb. Boiss., v. (1905) p. 24 ; Fl. Indo-Chine, i. p. 195.

Ratbouri, *Teysmann*, 5927 ex Hb. Kurz ; Paknampo, *Witt* 1.

Capparis tenera, *Dalz.*, var. latifolia, *Hook. f. et Th.*, F.B.I., i. p. 179. *C. disticha*, Kurz, Journ. As. Soc. Beng., xliii. p. 70 ; For. Fl. Burma, i. p. 62.

Chiengmai, scandent among bamboo clumps on banks of Meh Ping, 300 m., *Kerr*, 606.

Distr. Pegu, Rangoon.

Capparis Thorelii, *Gagnep.*, var. pranensis, *Gagnep.*—Fl. Indo-Chine, i. p. 190.

Muong Pran, *Pierre*, 4018.

Capparis sp.—Williams, Bull. Herb. Boiss., v. (1905) p. 24, partim.

Bangkok, *Schomburgk*, 108.

Crataeva Narvala, *Ham.* *C. religiosa*, Forst., var. *Nurvala*, Hook. f. et Th., F.B.I., i. p. 172. *C. religiosa*, Forst., var. *Narvala*, Fl. Indo-Chine, i. p. 178.

Phre, Hooey Kamin, 180 m., *Kerr*, 989.

Distr. India, Indo-China, Malaya.

Lao name, Mai Fukk Kum (ex *Kerr*).

Violaceae.

Viola Patrinii, *DC.*—F.B.I., i. p. 183 ; Fl. Indo-Chine, i. p. 208 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 21 ; Hosseus, ii. p. 415.
Pahombuk, Muang Fang, 2000 m. (ex *Hosseus*).
Distr. Afghanistan to Japan.

Viola serpens, *Wall.*—F.B.I., i. p. 184 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 22 ; Hosseus, ii. p. 415.
Chiengmai, Doi Sootep, 1200–1500 m., *Kerr*, 518, 518a ; 1500–1680 m., *Hosseus*, 190.
Distr. India, China, Burma, Malaya.

Alsodeia Murtonii, *Craib*, Kew Bull. 1910, p. 275. *A. macrophylla*, Williams, Bull. Herb. Boiss., v. (1905) p. 24, pro parte ; Fl. Indo-Chine, i. p. 217, pro parte, *non* Decne.
Koh Klone, *Murton*, 15.

Alsodeia sp., *Craib*, Kew Bull. 1910, p. 275, in nota. *A. macrophylla*, Williams, Bull. Herb. Boiss., v. (1905) p. 24, pro parte ; Fl. Indo-Chine, i. p. 217, pro parte, *non* Decne.
Chantaboon, *Murton* 72.
Closely related to *A. membranacea*, King, a native of Perak.

Scyphellandra Pierrei, *H. de Boissieu*—Fl. Indo-Chine, i. p. 218, cum tab. *S. virgata*, Hosseus, ii. p. 415, *vix* Thwaites.
Near Chantaboon, *Murton*, 84 ; between Wann Bao and Chieng Dao, 420 m., *Hosseus*, 465 ; Meh Ping Rapids, Ban Kaw, under bamboo, *Kerr*, 2025.
Distr. Cochinchina.

Bixaceae.

Bixa Orellana, *Linn.*—F.B.I., i. p. 190 ; For. Fl. Burma, i. p. 72 ; Fl. Indo-Chine, i. p. 220 ; Hosseus, ii. p. 415.
Paknampo (ex *Hosseus*).
Distr. Tropics—often cultivated.

Flacourtia Thorelii, *Gagnep.*—Fl. Indo-Chine, i. p. 236, var. ?
Chiengmai, Doi Sootep, 600–900 m., *Kerr*, 562 (♂) ; Ban Meh Tah, 450 m., *Kerr*, 562a (♀) ; Phre, 120–180 m., *Luang Vanpruk*, 144.
Distr. Nong-kay.
Lao name, M'Kwen (ex *Kerr*).
This species is represented in Herb. Kew by female specimens only. Kerr's 562a agrees with these, but 562 differs from the description in having the filaments glabrous.

Taraktogenos serrata, *Pierre ex Gagnep.*—Fl. Indo-Chine, i. p. 224.
Muong Pran (ex *Fl. Indo-Chine*).
Distr. Cochinchina (ex *Fl. Indo-Chine*).

Xylosma brachystachys, *Craib*, a *X. longifolia*, Clos, foliorum nervis paucioribus, inflorescentia reducta recedit.
Suffrutex sarmentosus, dioicus, glaber, in exemplo uno tantum spina solitaria axillari 4 mm. longa visa ; ramuli graciles, cortice primo pallide brunneo mox cinereo pauci-lenticellato obtecti. *Folia* plerumque oblonga vel oblongo-oblanceolata, apice acuminata, plerumque caudatim, mucronulata, basi cuneata vel late cuneata,

3·5–14·5 cm. longa, 1·2–5 cm. lata, rigide chartacea, nervis lateralibus utrinque 5–7 iis basalibus obliquis subrectis exceptis arcuatis supra conspicuis subtus cum costa prominentibus, nervis transversis uti lineis subparallelis pagina utraque conspicuis, margine, basi acumineque exceptis, serrata ; petioli ad 4 mm. longi, supra canaliculati, sicco pallide virides. *Inflorescentia* ♂ petiolos subaequans vel paullo superans ; pedicelli 1·5 mm. longi, glabri, basi parvibracteati. *Calycis* lobi 5, acuminati, 1·25 mm. longi, 1–1·5 mm. lati, glabri. *Stamina* numerosa, basi disco crenulato cincta, filamentis ad 1·75 mm. longis. *Inflorescentia* ♀ petiolos subaequans ; pedicelli vix 1 mm. longi, glabri, bracteis parvis. *Calyx* 1·5 mm. altus, ovario adpressus. *Ovarium* 0·75 mm. altum, basi disco cinctum, placentis duobus, pauciovulatum ; stylus validiusculus, ovario subaequialtus.—*Craib*, Kew Bull. 1912, p. 145.

Chiengmai, in evergreen jungle on Doi Sootep, 660 m., *Kerr*, 1821.

Polygalaceae.

Salomonia cantoniensis, *Lour.*—F.B.I., i. p. 206 ; Fl. Indo-Chine, i. p. 250.

Chiengmai, Doi Sootep, 360 m., *Kerr*, 1335.

Distr. S.E. Asia.

Salomonia longiciliata, *Kurz*—Fl. Indo-Chine, i. p. 251, cum tab ; Hosseus, ii. p. 403.

Wang Djao, 100 m., *Hosseus*, 121 ; Chiengmai, in deciduous jungle on Doi Sootep, 360 m., *Kerr*, 1350.

Distr. Pegu (Cambodia, ex *Fl. Indo-Chine*).

Polygala aurata, *Gagnep.*—Fl. Indo-Chine, i. p. 260.

Meh Ping, Muang Hawt, among grass in open deciduous jungle, 240 m., *Kerr*, 2020.

Distr. Cochinchina, Laos.

I am indebted to Mons. Gagnepain for kindly confirming this determination, but I must at the same time admit that I do not know what Blume's *P. brachystachys* is. *P. aurata* is certainly very near to if not quite identical with the *P. brachystachys* of the Mat. Mal. Pen. but whether King rightly identified his plant with Blume's the material at Kew is insufficient to decide.

Polygala glomerata, *Lour.*—F.B.I., i. p. 206 ; Fl. Indo-Chine, i. p. 257. *P. densiflora*, Blume—Chodat, Monogr. Polygal., ii. p. 380.

Chiengmai, Doi Sootep, 660–1200 m., *Kerr*, 1372, 1372a.

Distr. N. India, Indo-China, China, Malaya.

Polygala longifolia, *Poir.*—Chodat, Monogr. Polygal., ii. p. 358 ; Fl. Indo-Chine, i. p. 257 ; Hosseus, ii. p. 403. *P. leptalea*, DC.—F.B.I., i. p. 202, partim ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 22.

Chiengmai, in eng jungle on Doi Sootep, 300–600 m., *Kerr*, 755.

Distr. India, Burma, N.E. Australia.

Polygala persicariaefolia, *DC.*—F.B.I., i. p. 202 ; Chodat, Monogr. Polygal., ii. p. 331.

Chiengmai, among grass on Doi Sootep, 1500 m., *Kerr*, 887.

Distr. India, Burma, Assam, Yunnan, Trop. Africa.

Polygala tricholopha, *Chodat*, Monogr. Polygal., ii. p. 98. *P. arillata*, Ham.—F.B.I., i. p. 200, partim.

Chiengmai, scandent in evergreen jungle on Doi Sootep, 900 m., *Kerr*, 700.

Distr. Nepaul, Khasia.

Polygala triphylla, *Ham.*, var **glaucescens**, *A. W. Benn.*, F.B.I., i. p. 201 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 23 ; Hosseus, ii. p. 403.

Chiengmai, among grass on Doi Sootep, 1500 m., *Kerr* 777, 886 ; Wang Djao, 100 m., *Hosseus* 55.

Distr. India, China, Burma, Malay Peninsula.

P. cardiocarpa, Kurz, which is not represented in Herb. Kew must be closely allied to this plant. According to Fl. Indo-Chine *P. cardiocarpa* does occur in Indo-China, whereas *P. glaucescens* is not mentioned in that Flora.

Xanthophyllum flavescens, *Roxb.*, var **virens**, *A. W. Benn.*, F.B.I., i. p. 209. *X. virens*, Roxb.—For. Fl. Burma, i. p. 81.

Muang Prow, Meh Ngat, 480 m., *Kerr*, 1038.

Distr. Burma, Assam.

Lao name, Kang Kau (ex *Kerr*).

Caryophyllaceae.

Brachystemma calycinum, *Don*—F.B.I., i. p. 235 ; Fl. Indo-Chine, i. p. 265 ; Hosseus, ii. p. 388.

Chieng Dao, 400 m., *Hosseus*, 470.

Distr. Nepaul to Yunnan.

Polycarpaea corymbosa, *Lamk.*—F.B.I., i. p. 245 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 24 ; Fl. Indo-Chine, i. p. 267 ; Hosseus, ii. p. 389.

Kau Phra Dang, 120–230 m., *Hosseus*, 158.

Distr. Tropical Asia and Africa.

Portulacaceae.

Portulaca oleracea, *Linn.*—F.B.I., i. p. 246 ; Fl. Indo-Chine i. p. 274.

Chiengmai, 300 m., *Kerr*, 1473—"a garden weed."

Distr. All warm countries.

Hypericaceae.

Hypericum japonicum, *Thunb.*—F.B.I., i. p. 256 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 24 ; Fl. Indo-Chine, i. p. 286 ; Hosseus, ii. p. 413 (*H. javanicum*).

Chiengmai, Doi Sootep, 700 m., *Hosseus*, 485.

Distr. India, Burma, China, Japan, Malaya, Australia, New Zealand.

Cratoxylon polyanthum, *Korth.*—F.B.I., i. p. 257 ; For. Fl. Burma, i. p. 84 ; Williams, Bull. Herb. Boiss., v. (1905) p. 25 ; Fl. Indo-Chine, i. p. 290.

Chiengmai, Doi Sootep, 390 m., *Kerr*, 1080 ; Petchabouri (ex *Fl. Indo-Chine*).

Distr. Throughout Indo-China, China, Malaya, Philippines.

Cratoxylon prunifolium, *Dyer*, F.B.I., i. p. 258 ; Fl. Indo-Chine, i. p. 289. *C. pruniflorum*, Kurz, For. Fl. Burma, i. p. 84.
Chiengmai, in deciduous jungle on lower slopes of Doi Sootep, 300–600 m., *Kerr*, 611.
Distr. Burma, Yunnan, Cambodia.

GUTTIFERAE.

Garcinia cornea, *Linn.*—F.B.I., i. p. 260 ; For. Fl. Burma, i. p. 88.
Chiengmai, Doi Sootep, 660 m., *Kerr*, 1073 ♂ ; Meh Kung, 420 m., *Kerr*, 1020 ♀ ; Me Yuak Phre, 240 m., *Luang Vanpruk*, 237 (♂).
Distr. India, Burma, Malaya.
Lao name, Pawng (ex *Luang Vanpruk*).

Garcinia Cowa, *Roxb.*—F.B.I., i. p. 262, partim ; For. Fl. Burma, i. p. 90.
Chiengmai, Doi Sootep, 900 m., *Kerr*, 1124.
Distr. Bengal, Burma, Assam, Yunnan.

Garcinia merguensis, *Wight*—F.B.I., i. p. 267 ; For. Fl. Burma, i. p. 89 ; Fl. Indo-Chine, i. p. 299.
Chiengmai, Doi Sootep, 600 m., *Kerr*, 1135 ♀, 1139 ♂.
Distr. Burma, Malacca, Cambodia.

Garcinia Morella, *Desrouss.*—F.B.I., i. p. 264.
Siam (ex *F.B.I.*).
Distr. India, Khasia, Malay Peninsula (ex *F.B.I.*).

Garcinia Schomburgkiana, *Pierre*—Fl. Indo-Chine, i. p. 312 ; *non* Williams, Bull. Herb. Boiss., v. (1905) p. 25.
Siam, *Schomburgk*, sine num.

Garcinia Xanthochymus, *Hook. f. ex T. And.*, F.B.I., i. p. 269; For. Fl. Burma, i. p. 93 ; Williams, Bull. Herb. Boiss., v. (1905) p. 26.
Chiengmai, Doi Sootep, 660 m., *Kerr*, 1201.
Distr. India (often cultivated).
Lao name, Mai Dah (ex *Kerr*).

Ochrocarpus siamensis, *T. And.*, F.B.I., i. p. 270 ; For. Fl. Burma, i. p. 94 ; Fl. Indo-Chine, i. p. 293 ; Williams, Bull. Herb. Boiss., v. (1905) p. 25.
Chiengmai, on lower slopes of Doi Sootep, 300–450 m., *Kerr*, 548.
Distr. Burma, Cambodia, Cochinchina.
Lao name, Sălŭp Pi (ex *Kerr*).

Calophyllum Inophyllum, *Linn.*—F.B.I., i. p. 273 ; For. Fl. Burma, i. p. 95 ; Fl. Indo-Chine, i. p. 324 ; Williams, Bull. Herb. Boiss., v. (1905) p. 25. *Garcinia Schomburgkiana*, Williams, Bull. Herb. Boiss., v. (1905) p. 25, *non* Pierre.
Bangkok, *Schomburgk*, 151.
Distr. India, Burma, China, Cochinchina, Malaya.

Mesua ferrea, *Linn.*—F.B.I., i. p. 277 ; For. Fl. Burma, i. p. 97 ; Fl. Indo-Chine, i. p. 328 ; Williams, Bull. Herb. Boiss., v. (1905) p. 25.
Chiengmai, cultivated, 300 m., *Kerr*, 1211 ; Bangkok, *Zimmermann*, 110.
Distr. Throughout India, Indo-China, Malaya—often cultivated.

Anneslea fragrans, *Linn.*—F.B.I., i. p. 280 ; For. Fl. Burma, i. p. 98 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 25 ; Williams, Bull. Herb. Boiss., v. (1905) p. 25 ; Fl. Indo-Chine, i. p. 335 ; Hosseus, ii. p. 412.

Chiengmai, Doi Sootep, 1350–1680 m., *Kerr*, 509, *Hosseus*, 216.

Distr. Burma.

Ternstroemia japonica, *Thunb.*—F.B.I., i. p. 280 ; For. Fl. Burma, i. p. 99 ; Fl. Indo-Chine, i. p. 332.

Chiengmai, Doi Sootep, 1500 m., *Kerr*, 1307 (♀), 900 m., *Kerr*, 1257 (♂).

Distr. India, Burma, China, Japan, Cambodia, Cochinchina.

This plant may have eventually to be separated from *T. japonica* from which it differs chiefly in being dioiceous. It may be the same plant as noted by Griffith and commented on in Fl. Brit. India.

Adinandra integerrima, *T. And. ex Dyer*, F.B.I., i. p. 282 ; Fl. Indo-Chine, i. p. 334.

Chiengmai, Doi Sootep, 900 m., *Kerr*, 1156.

Distr. Yunnan, Cambodia, Malay Peninsula.

Eurya acuminata, *DC.*, var. **Wallichiana**, *Dyer*, F.B.I., i. p. 285 ; Fl. Indo-Chine, i. p. 339 ; Hosseus, ii. p. 412.

Chiengmai, in evergreen jungle on Doi Sootep, 1260–1680 m., *Kerr*, 875, 1504, *Hosseus*, 182.

Distr. India, Burma, China, Malaya.

Eurya japonica, *Thunb.*, var. **nitida**, *Dyer*, F.B.I., i. p. 284 ; Fl. Indo-Chine, i. p. 338 ; Hosseus, ii. p. 412.

Chiengmai, Doi Sootep, 1500–1700 m., *Kerr*, 510, *Hosseus*, 181, 183.

Distr. India, Indo-China, Malay Archipelago.

Saurauja cerea, *Griffith ex Dyer*, F.B.I., i. p. 288 ; Hosseus, ii. p. 412. *S. armata*, Kurz, For. Fl. Burma, i. p. 103.

Muang Fang, 1000 m. (ex *Hosseus*).

Distr. Bhutan, Upper Burma.

Saurauja Roxburghii, *Wall.*—F.B.I., i. p. 287 ; For. Fl. Burma, i. p. 103 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 25 ; Fl. Indo-Chine, i. p. 26.

Chiengmai, in evergreen jungle on Doi Sootep, 900 m., *Kerr*, 686.

Distr. E. India.

Schima Wallichii, *Choisy*—F.B.I., i. p. 289 ; For. Fl. Burma, i. p. 106 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 25 ; Fl. Indo-Chine, i. p. 350.

Chiengmai, Doi Sootep, 660–1350 m., *Kerr*, 1083.

Distr. India, Burma, Yunnan.

Lao name, Měh Tăh Loh (ex *Kerr*).

Pyrenaria camelliæflora, *Kurz*, var.?

Chiengmai, Doi Sootep, 1350–1650 m., *Kerr*, 1102.

Differs from *P. camelliæflora*, chiefly in the slightly larger flowers.

Camellia sp.
Chiengmai, Doi Sootep, 1200–1700 m., *Kerr*, 889, *Hosseus*, 180.
Lao name, Mieng Pa (ex *Kerr*).

Hosseus, ii. p. 413, determines this plant as *Thea japonica*, Linn., forma. In Kew Bull. 1911, p. 16, the writer referred it to *C. drupifera*, Lour. After further examination of the specimens quoted and a comparison with the material in Herb. Kew the writer has failed to match it absolutely with any specimen in the Herbarium, and considering the rather involved state of the synonymy within the genus, he prefers to leave the identification doubtful.

Dipterocarpaceae.

Dipterocarpus alatus, *Roxb.*—F.B.I., i. p. 298, excl. syn. *D. costatus*; For. Fl. Burma, i. p. 116; Brandis, Journ. Linn. Soc., xxxi. p. 34; Fl. Indo-Chine, i. p. 362; Williams, Bull. Herb. Boiss., v. (1905) p. 26; Ryan et Kerr, Journ. Siam Soc., viii. p. 5.

Chiengmai plain, 300 m., *Kerr*, 532.

Distr. Burma.

Lao name, Mai Yang (ex *Kerr*).

Dipterocarpus costatus, *Gaertn.*—For. Fl. Burma, i. p. 117; Brandis, Journ. Linn. Soc., xxxi. p. 35; Ryan et Kerr, Journ. Siam Soc., viii. p. 5. *D. alatus*, Dyer, F.B.I., i. p. 298, partim.

Chiengmai, in evergreen jungle on Doi Sootep, 600–(? 1500) m., *Kerr*, 1067.

Distr. Chittagong (*fide Smith in litt.*), Burma, *Robertson*, 118, *Brandis* in Herb. Kurz.

Lao name, Mai Yang Pai (ex *Kerr*).

A portion of Kerr's 1067 was sent to Calcutta Herbarium, and was compared with the material there by Mr. W. W. Smith, who remarks that it agrees well with the Burmese specimens referred to *D. costatus* by the late Sir George King. Through lack of material, Dyer, in the Flora of British India, l.c., reduced this species to *D. alatus*, and Brandis, for the same reason, while enumerating it as a distinct species, seems to indicate that it is not a very satisfactory species. The receipt of good material shows, however, that it is a well-marked species, and quite distinct from *D. alatus*.

Dipterocarpus intricatus, *Dyer*—Brandis, Journ. Linn. Soc., xxxi. p. 39; Fl. Indo-Chine, i. p. 360.

Korat, 60–90 m., *Witt.*

Distr. Cambodia, Cochinchina.

Siamese name, Mai Krat (ex *Witt*).

Dipterocarpus obtusifolius, *Teysm.*—F.B.I., i. p. 295; For. Fl. Burma, i. p. 115; Brandis, Journ. Linn. Soc., xxxi. p. 27; Fl. Indo-Chine, i. p. 358; Williams, Bull. Herb. Boiss., v. (1905) p. 26.

Chiengmai, Doi Sootep, 300–900 m., *Kerr*, 931, *Hosseus*, 298; *Teysmann*, 5918 Herb. Bog. sine loc.

Distr. Burma.

Lao name, Mai Hieng (ex *Kerr*).

Ryan and Kerr, in their paper on the Dipterocarpaceae of Northern Siam in Journal Siam Soc., vol. viii., describe *D. obtusifolius* as having "the young shoots, petioles, stipules and inflorescence densely clothed with long tawny fascicled hairs," and describe a variety *subnudus* which has the young shoots and stipules quite glabrous, the petiole glabrous for the greater part of its length, and the calyx tube quite glabrous or silky pubescent.

Hosseus, ii. p. 413, refers his 298 to *D. Duperreanus*, Pierre and says that that species is very closely allied to *D. obtusifolius*. So far as the material in Herb. Kew goes, it appears advisable to the writer to follow the first-named authors and regard the one plant as a variety of the other. The two plants apparently bear exactly the same relationship to each other as *Pentacme siamensis* does to its variety *mekongensis*.

Dipterocarpus tuberculatus, *Roxb.*—F.B.I., i. p. 297; For. Fl. Burma, i. p. 113; Brandis, Journ. Linn. Soc., xxxi. p. 32; Fl. Indo-Chine, i. p. 361; Williams, Bull. Herb. Boiss., v. (1905) p. 26; Hosseus, ii. p. 414.

Chiengmai, on lower slopes of Doi Sootep, 300–450 m., *Kerr*, 1066; Korat, 60–90 m., *Witt*; *Teysmann*, 5932 in Herb. Bog. sine loc.

Distr. Burma, Cochinchina.

Lao name, Mai Tüng (ex *Kerr*).

Here again there are two varieties bearing the same relationship to each other as in the case of *D. obtusifolius* and *Pentacme siamensis*. The tomentose form has been named var. *tomentosus* by Ryan and Kerr l.c., p. 4. Large suites of specimens have been received lately at Kew from Dr. Kerr and to the writer these bear out the advisability of following the treatment proposed by Ryan and Kerr.

Dipterocarpus turbinatus, *Gaertn.*—F.B.I., i. p. 295, e. p.; For. Fl. Burma, i. p. 114; Brandis, Journ. Linn. Soc., xxxi. p. 27; Hosseus, ii. p. 414; Ryan et Kerr, Journ. Siam Soc., viii. p. 3. *D. laevis*, Ham.—For. Fl. Burma, i. p. 114.

Chiengmai, Doi Sootep, 600 m., *Kerr*, 1152; Kau Phra Dang, *Hosseus*.

Distr. Assam, Burma, Malacca.

Lao and Siamese name, Mai Yang (ex *Kerr*).

Shorea floribunda, *Kurz ex Dyer*, F.B.I., i. p. 304; For. Fl. Burma, i. p. 119; Brandis, Journ. Linn. Soc., xxxi. p. 85; Hosseus, ii. p. 414; Ryan et Kerr, Journ. Siam Soc., viii. p. 6.

Chiengmai, Doi Sootep, 300–800 m., *Kerr*, 527, 567, *Hosseus*, 427; Phre, 135 m., *Luang Vanpruk*, 131.

Distr. Burma.

Lao name, K'Yawm (ex *Kerr*).

Shorea obtusa, *Wall.*—F.B.I., i. p. 306; For. Fl. Burma, i. p. 118; Brandis, Journ. Linn. Soc., xxxi. p. 80; Fl. Indo-Chine, i. p. 378; Ryan et Kerr, Journ. Siam Soc., viii. p. 6.

Chiengmai, lower slopes of Doi Sootep, 300–600 m., *Kerr*, 549; Phre, 150–450 m., *Luang Vanpruk*, 195.

Distr. Throughout Indo-China, East India.

Lao name, Mai Ngaa (ex *Kerr*).

Hopea odorata, *Roxb.*—F.B.I., i. p. 308; For. Fl. Burma, i. p. 120; Brandis, Journ. Linn. Soc., xxxi. p. 59; Fl. Indo-Chine, i. p. 373; Ryan et Kerr, Journ. Siam Soc., viii. p. 8.

Chiengmai, Doi Sootep, 300–750 m., *Kerr*, 1099; Muang Win, 420–450 m., *Nisbet*, 1069 in Herb. Kerr; Bangkok, *Zimmermann*, 103; Lem Tong Lan, *Murton*, 121.

Distr. General in Indo-China, Andaman Is., Borneo.

Lao name, Mai Takien (ex *Kerr*).

Murton, 121 is referable to var. *eglandulosa*, Pierre.

Pentacme siamensis, *Kurz*, For. Fl. Burma, i. p. 119; Fl. Indo-Chine, i. p. 385. *Shorea siamensis*, Miq.—F.B.I., i. p. 304; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 25; Ryan et Kerr, Journ. Siam Soc., viii. p. 7.

Var. β **suavis**, *Pierre*—Fl. Indo-Chine, l.c., p. 386.

Chiengmai, Doi Sootep, 300–750 m., *Kerr*, 556 e.p.

Var. γ **mekongensis**, *Pierre*—Fl. Indo-Chine, l.c., p. 386; Hosseus, ii. p. 414; Ryan et Kerr, Journ. Siam Soc., viii. p. 7.

Chiengmai, Doi Sootep, 400–800 m., *Kerr*, 556 e.p., *Hosseus*, 477.

Distr. Burma.

Lao name, Mai Pow (ex *Kerr*).

Malvaceae.

Kydia calycina, *Roxb.*—F.B.I., i. p. 348; Fl. Indo-Chine, i. p. 445; For. Fl. Burma, i. p. 124; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 26.

Phre, 180–360 m., *Luang Vanpruk*, 183.

Distr. India, Indo-China.

Lao name, Lieng Mann (ex *Luang Vanpruk*).

Wissadula zeylanica, *Medik.*—Fl. Indo-Chine, i. p. 410; Hosseus, ii. p. 411. *W. rostrata*, Planch.—F.B.I., i. p. 325.

Lakon, 300 m., *Kerr*, 1012; Menam, Petchabun, 70 m., *Hosseus*, 716a.

Distr. Tropics.

Sida acuta, *Burm.*—Fl. Indo-Chine, i. p. 402. *S. carpinifolia*, Linn.—F.B.I., i. p. 323; Williams, Bull. Herb. Boiss., v. (1905) p. 961.

Chiengmai, 300 m., on waste ground, *Kerr*, 1478.

Distr. S.E. Asia.

Sida mysorensis, *Wight et Arn.*—F.B.I., i. p. 322; Fl. Indo-Chine, i. p. 403.

Chiengmai, Doi Sootep, 660 m., *Kerr*, 959.

Distr. India, throughout Indo-China, Java.

Abutilon graveolens, *Wight et Arn.*—F.B.I., i. p. 327; Fl. Indo-Chine, i. p. 408.

Phre, 150 m., *Luang Vanpruk*, 194.

Distr. S.E. Asia.

Lao name, Aab Koa (ex *Luang Vanpruk*).

Abutilon indicum, *G. Don*—F.B.I., i. p. 326; Fl. Indo-Chine, i. p. 409; Hosseus, ii. p. 409.
Bangkok, *Schomburgk*, 208, *Zimmermann*, 165; Chiengmai, in scrub jungle, 300 m., *Kerr*, 1467; Paknampo (ex *Hosseus*).
Distr. Tropics.

Malachra capitata, *Linn.*—F.B.I., i. p. 329; Fl. Indo-Chine, i. p. 411.
Bangkok, *Zimmermann*, 32.
Distr. Tropics.

Urena lobata, *Linn.*, var. sinuata (*Linn.*)—Fl. Indo-Chine, i. p. 414. *U. sinuata*, Linn.—F.B.I., i. p. 329.
Bangkok, *Zimmermann*, 22.
Distr. Tropics.

Urena repanda, *Roxb.*—F.B.I., i. p. 330; Williams, Bull. Herb. Boiss., v. (1905) p. 961; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 26; Fl. Indo-Chine, i. p. 416; Hosseus, ii. p. 410.
Chiengmai, Doi Sootep, 400—500 m., *Hosseus*, 278; Raheng, *Lindhard*, 64; Siam (?), *Candler*; Wang Djao (ex *Hosseus*).
Distr. India, Burma, China.

Urena rigida, *Wall.*—F.B.I., i. p. 330; Fl. Indo-Chine, i. p. 414; Hosseus, ii. p. 411.
Siam (?), *Candler*; Chiengmai, Doi Sootep, 1680 m. (ex *Hosseus*).
Distr. India, Malacca, Borneo.

Malvaviscus arboreus, *Cavan.*—Fl. Indo-Chine, i. p. 412.
Bangkok, *Zimmermann*, 51.
Distr. Native of Trop. America and W. Indies, often cultivated in the tropics.

Decaschistia parviflora, *Kurz*, Journ. As. Soc. Beng., xxix. p. 66. *D. Thorelii*, Pierre — Fl. Indo-Chine, i. p. 420.
Kanburi, *Teysmann*, ex herb. Kurz; Petchabouri, *Pierre*, 3922.
Distr. Cambodia.

Decaschistia siamensis, *Craib*, a *D. crotonifolia*, Wight et Arn., foliis tenuioribus supra scaberulis, floribus fructibus seminibusque minoribus recedit.

Fruticulus ad 1·2 m. altus (ex *Kerr*); ramuli primo densius tomentoso-pubescentes praetereaque pilis stellatis rigidioribus longioribus passim instructi. *Folia* late ovata, ovata vel ovato-lanceolata, apice acuta, basi rotundata vel obtusa, interdum subcordata, 6–14 cm. longa, 1–6·5 cm. lata, tenuiter chartacea, supra breviter, tenuiter stellato-pubescentia praetereaque ob pilos paucos stellatos longiores et multo rigidiores scaberula, subtus densius, molliter tomentosa, margine distanter irregulariter serrata nisi parte basali integra, e basi trinervata, nervis secondariis (e costa ortis) utrinque 4–6 supra conspicuis subtus prominentibus, nervis transversis subtus prominulis, costa subtus basin versus glandula ad 4 mm. longa instructa; petioli 1–3 cm. longi, dense tomentosi; stipulae e segmentis tribus subaequilongis ad 1·2 cm. longis constitutae, caducae. *Flores* axillares, solitarii vel gemini, pedicellis usque ad 7 mm. longis suffulti. *Bracteolae* 10, aequales, lineares, acutae, ad 8 mm. longae et 1·75 mm. latae, extra tomentosae, intra

subsericeae. *Calyx* sub anthesin circiter 1 cm. longus, fere ad medium lobatus, lobis late deltoideis acuminatis acutis 5 mm. latis extra hirsutis intra superne adpresse pilosulis distincte nervatis ; calyx infructescens parum major. *Corolla* 4 cm. longa, sulphurea nisi basi atro-purpurea (ex *Kerr*). *Stamina gynoeciumque* generis. *Capsula* calycem vix aequans, dense hirsuta. *Semina* 3·5 mm. longa, glabra.—*Craib*, Kew Bull. 1912, p. 146.

Sriracha, in scrub jungle near the sea, *Kerr*, 2105.

Hibiscus Abelmoschus, *Linn.*—F.B.I., i. p. 342 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 26 ; Fl. Indo-Chine, i. p. 434 ; Hosseus, ii. p. 410. *H. cancellatus*, Williams, Bull. Herb. Boiss., v. (1905) p. 28, *non* Roxb.

Bangkok, *Schomburgk*, 310, *Zimmermann*, 148 ; Paknampo (ex *Hosseus*).

Distr. India ; generally cultivated in the tropics.

Hibiscus cancellatus, *Roxb.*—F.B.I., i. p. 342, partim ; Fl. Indo-Chine, i. p. 435 ; *non* Williams, Bull. Herb. Boiss., v. (1905) p. 28.

Chiengmai, in mixed jungle at foot of Doi Sootep, 300 m., *Kerr*, 764.

Distr. India, Yunnan.

Hibiscus cancellatus, *Roxb.*, var. fusiformis, Wall.—F.B.I., i. p. 343 ; Hosseus, ii. p. 410.

Banks of Meh Kok, 100 m. (ex *Hosseus*).

Occurs with type.

Hibiscus glanduliferus, *Craib*, Kew Bull. 1910, p. 275.

Chiengmai, *Kerr*, 778.

Hibiscus macrophyllus, *Roxb.*—F.B.I., i. p. 337 ; For. Fl. Burma, i. p. 126 ; Fl. Indo-Chine, i. p. 426.

Phre, Hooey Kong Muang, 240 m., *Luang Vanpruk*, 218.

Distr. Indo-China, Malay Peninsula.

Lao name, Tawng Toa (ex *Luang Vanpruk*).

"The fibre is used for elephant rope"—*Luang Vanpruk*.

Hibiscus Rosa-sinensis, *Linn.*—F.B.I., i. p. 344 ; For. Fl. Burma, i. p. 125 ; Fl. Indo-Chine, i. p. 429.

Bangkok, *Zimmermann*, 43, 79.

Distr. Tropics—often cultivated.

Hibiscus sagittifolius, *Kurz*—? Fl. Indo-Chine, i. p. 434 ; Hosseus, ii. p. 410.

Chiengmai, in open grassy spots on Doi Sootep, 450 m., *Kerr*, 638 ; Pitsanulok, Nakontai, 120 m. (ex *Hosseus*).

Distr. Burma, Cambodia, Cochinchina.

There is in Herb. Kew no authentically named material of *H. sagittifolius* but specimens sent to Kew lately from Maymyo which seem to fit Kurz's original description do not agree with specimens received from Paris under that name. Kerr's plant quoted above approaches var. *septentrionale*, Gagnep., Fl. Indo-Chine, l.c.

Hibiscus schizopetalus, *Hook. f.*—Fl. Indo-Chine, i. p. 432.

Bangkok, *Zimmermann*, 33.

Distr. Mozambique—often cultivated in the tropics.

Hibiscus Solandra, *L'Herit.*—F.B.I., i. p. 336.

Bang Toong Cha, foot of Meh Ping Rapids, 120 m., *Kerr*, 906.

Distr. Trop. Africa, Afghanistan, India, Burma.

Hibiscus subnudus, *Craib*, radice floribusque *H. sagittifolio*, Kurz, similis sed caulibus sub anthesin fere nudis, indumento diverso, involucri bracteis brevioribus differt.

Herba 15–31 cm. alta; radix perennis, crassa, fusiformis vel napiformis, ad 10 cm. longa, 6 cm. diametro; caules annui, 2·5–4·5 mm. diametro, juventute erecti, anni praeteriti prostrati, primo pilis brevibus rigidiusculis reflexis dense obtecti et praeterea pilis longiusculis deciduis parce instructi. *Folia* cordato-reniformia vel sagittata, apice obtusa, 1·5–2 cm. longa, 1·2–1·7 cm. lata, rigide chartacea, crenata, utrinque pilis albis nitidis longiusculis rigidiusculis deciduis instructa, nervis e basi 5 utrinque conspicuis; petioli 8–13 mm. longi, indumento ut foliis; stipulae parvae, deciduae. *Pedunculi* axillares, uniflori, raro furcati, 6·5–10 cm. longi, indumento ut caulibus. *Involucri* bracteae 7, e basi liberae, linearilanceolatae, obtusae, 1 cm. longae, 1·5 mm. latae, indumento brevi ut caulibus et praeterea pilis longis sparse ciliatae. *Calyx* spathaceus vel in segmenta dua irregulariter fissus, involucrum paullo superans, puberulus. *Corolla* longe exserta, 5–6 cm. longa, 6–6·5 cm. diametro, sulphurea nisi oculo coccineo (ex *Kerr*); petala late obovata vel subrhomboidea, 4·7 cm. lata, glabra, ungui brevi. *Filamenta* in columnam 1·5 cm. altam connata. *Styli* rami 5, subconnati, stigmatibus spatulatis breviter pilosis. *Fructus* vix maturus, late ellipsoideus, 1·6 cm. altus, 1 cm. diametro, parce albohirsutus.—*Craib*, Kew Bull. 1911, p. 19.

Near Meh Mäu, 300 m., in deciduous jungle, *Kerr*, 1004.

Lao name, Chi Chaw (ex *Kerr*).

Hibiscus surattensis, *Linn.*—F.B.I., i. p. 334; Williams, Bull. Herb. Boiss., v. (1905) p. 961; Fl. Indo-Chine, i. p. 423; Hosseus, ii. p. 410.

Between Wann Bao and Chieng Dao, 400 m., *Hosseus*, 468; Raheng, *Lindhard*, 65.

Distr. Trop. Asia, Australia, Africa.

Hibiscus vitifolius, *Linn.*—F.B.I., i. p. 338.

Chiengmai, 300 m., *Kerr*, 800.

Distr. Tropics—often cultivated.

Thespesia Lampas, *Dalz. et Gibs.*—F.B.I., i. p. 345; For. Fl. Burma, i. p. 128; Fl. Indo-Chine, i. p. 437; Hosseus, ii. p. 410.

Chiengmai, Doi Sootep, 300–720 m., *Kerr*, 795; Wang Djao, 100 m., *Hosseus*, 54.

Distr. India, Burma, China, Cochinchina, Malaya, Africa.

Thespesia populnea, *Courr.*—F.B.I., i. p. 345; Fl. Indo-Chine, i. p. 436; For. Fl. Burma, i. p. 128.

Sriracha, sea-shore, *Kerr*, 2038.

Distr. India, Indo-China, Malay Archipelago, Philippines.

Gossypium arboreum, *Linn.*—F.B.I., i. p. 347; Fl. Indo-Chine, i. p. 441.

Bangkok, *Zimmermann*, 131.

Sir G. Watt remarks on this plant that it is a "form approaching *G. Nanking*, Meyen."

Gossypium herbaceum, *Linn.*—Hosseus, ii. p. 410.
Pitsanulok, Ban Jang, cultivated (ex *Hosseus*).
Distr. Tropics.

Bombax cambodiense, *Pierre*—Fl. Indo-Chine, i. p. 449.
Petchabouri ? (ex *Fl. Indo-Chine*).
Distr. Cambodia (ex *Fl. Indo-Chine*).

Sterculiaceae.

Sterculia campanulata, *Wall. ex Masters*, F.B.I., i. p. 362 ; For. Fl. Burma, i. p. 139.
Hills between Muang Prow and Chieng Dao, 600 m., *Kerr*, 1043.
Distr. Burma, Malay Peninsula.
The identification is not quite certain as the collection consists of a few male flowers.

Sterculia lanceolata, *Cav.*—Fl. Indo-Chine, i. p. 470.
Chiengmai, Doi Sootep, 660 m., *Kerr*, 1088.
Distr. China, [Tonkin, Laos, Hainan, ex *Fl. Indo-Chine*].

Sterculia ornata, *Wall.*—For. Fl. Burma, i. p. 136 ; Fl. Indo-Chine, i. p. 466. *S. armata*, Mast., F.B.I., i. p. 357. *S. campanulata*, Hosseus, ii. p. 411, *non* Wall.
Doi Chieng Dao, 1700 m., *Hosseus*, 411.
Distr. Burma.

Sterculia pexa, *Pierre*—Fl. Indo-Chine, i. p. 462.
Bangkok, *Zimmermann*, 48.
Distr. Cochinchina.

Tarrietia javanica, *Blume*. *T. cochinchinensis*, Pierre—Fl. Indo-Chine, i. p. 482.
Sriracha, Nawng Kaw, in evergreen jungle, 30 m., *Kerr*, 2081.
Distr. Java, Cambodia, Cochinchina.
Siamese name, Ta Süa ? (ex *Kerr*).
Gagnepain in Fl. Indo-Chine, l.c. while retaining Pierre's species remarks that the fruiting specimens do not differ from *T. javanica*. Dr. Kerr's specimens are in flower and agree with *T. javanica*.

Heritiera littoralis, *Dryand.*—F.B.I., i. p. 363 ; For. Fl. Burma, i. p. 140 ; Fl. Indo-Chine, i. p. 483.
Sriracha, by beach, *Kerr*, 2100.
Distr. Tropical coasts of the old world.

Helicteres angustifolia, *Linn.*—F.B.I., i. p. 365, partim ; Fl. Indo-Chine, i. p. 495 ; Hosseus, ii. p. 411.
Wang Djao, 100 m., *Hosseus*, 70a.
Distr. India, China, Malaya.

Helicteres elongata, *Wall.*—F.B.I., i. p. 365 ; For. Fl. Burma, i. p. 144 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 27 ; Hosseus, ii. p. 411.
Raheng, 120 m., *Kerr*, 902 ; Wang Djao, 100 m., *Hosseus*, 60.
Distr. E. India, Burma.

Helicteres Gagnepainiana, *Craib*, ab *H. Geoffrayi*, Gagnep., ramulis foliisque haud glabris, inflorescentiae rhachi gladulosa facile distinguenda.

Suffrutex sarmentosus, circiter 1 m. altus (ex *Kerr*); ramuli cinereo-albidi, pilis minutis stellatis confertis diu persistentibus obtecti. *Folia* lanceolata, apice indistincte acuminata, mucronata, basi cuneata vel late cuneata, obtusiuscula, 4·5–11·5 cm. longa, 1·3–3 cm. lata, chartacea vel tenuiter chartacea, integra, supra fusca, nisi costa pilis minutis stellatis tecta glabra, subtus pallida, indumento ut ramulis, e basi trinervata, nervis secondariis (e costa ortis) utrinque 6–7 supra subconspicuis subtus prominentibus, nervis transversis subtus prominulis; petioli graciles, ad 7 mm. longi, indumento ut ramulis; stipulae 5 mm. longae, 0·75 mm. latae, acutae. *Inflorescentia* brevis, axillaris, rhachi glandulis nigris sessilibus instructa; pedicelli 2·5 mm. longi; bracteae ad 4 mm. longae. *Calyx* extra minute stellato-pubescens; tubus 4 mm. longus; lobi lanceolati, acuti, 2 mm. longi, 1 mm lati, intra minute stellato-pubescentes. *Petala* purpurea (ex *Kerr*), 8 mm. longa, 1·5 mm. lata. *Androphorium* glabrum, circiter 5 mm. longum.—*Craib*, Kew Bull. 1912, p. 146.

Sriracha, Nawng Kaw, by side of railway track, 30 m., *Kerr*, 2046.

Named in compliment to Mons. Gagnepain, to whom I am indebted for comparing this plant and several others of Dr. Kerr's collections with the species described by him in the Flore Generale de l'Indo-Chine.

Helicteres glabriuscula, *Wall.*—F.B.I., i. p. 366; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 26.

Chiengmai, in scrub jungle at foot of Doi Sootep, 300 m., *Kerr*, 630.

Distr. Burma.

Helicteres hirsuta, *Lour.*—For. Fl. Burma, i. p. 143; Fl. Indo-Chine, i. p. 490. *H. spicata*, Colebr. ex Masters, F.B.I., i. p. 366; Williams, Bull. Herb. Boiss., v. (1905) p. 29, in part.

Sriracha, in scrub jungle, under 15 m., *Kerr*, 2142; Raheng, *Lindhard*.

Distr. India, China, Indo-China, Malaya.

Helicteres Isora, *Linn.*—F.B.I., i. p. 365; Fl. Indo-Chine, i. p. 488; Williams, Bull. Herb. Boiss., v. (1905) p. 29; For. Fl. Burma, i. p. 142.

Chiengmai, in scrub jungle on Doi Sootep, 330 m., *Kerr*, 1410 and in deciduous jungle, 330 m., *Kerr*, 1948.

Distr. S.E. Asia, Australia, Bourbon, Natal.

Helicteres lanata, *Kurz*, For. Fl. Burma, i. p. 143; Williams, Bull. Herb. Boiss., v. (1905) p. 29; Fl. Indo-Chine, i. p. 492.

Sriracha, in scrub jungle near the sea, *Kerr*, 2014; Petchabouri, Mt. Taleng, *Pierre*, 3747; Siam, *Binnendyck*.

Distr. Cambodia.

Helicteres lanceolata, *DC.*—For. Fl. Burma, i. p. 142 (in clavi); Williams, Bull. Herb. Boiss., v. (1905) p. 29; Fl. Indo-Chine, i. p. 493; Hosseus, ii. p. 411. *H. angustifolia*, F.B.I., i. p. 365, partim.

Wang Djao, 100 m., *Hosseus*, 70.

Distr. Burma, Cochinchina, Java.

Helicteres plebeja, *Kurz*—F.B.I., i. p. 366 ; For. Fl. Burma, i. p. 144 ; Fl. Indo-Chine, i. p. 491.

Chiengmai, deciduous jungle on Doi Sootep, 720 m., *Kerr*, 630a.

Distr. Burma, Tonkin.

Very closely allied to, if not identical with, *H. elongata*.

Pterospermum acerifolium, *Willd.*—F.B.I., i. p. 368 ; For. Fl. Burma, i. p. 145 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 27.

Phre, 240 m., *Luang Vanpruk*, 244.

Distr. India, Manipur, Khasia, Chittagong, Burma.

Pterospermum littorale, *Craib*, a *P. grewiaefolio*, Pierre, floribus majoribus recedit.

Arbor parva (ex *Kerr*) ; ramuli primo albido- vel pallide rufo-stellato-tomentelli, mox glabri, cortice fusco reticulato-striato obtecti. *Folia* ambitu plerumque oblonga, apice acuminata, acuta, basi inaequalia, truncato-cordata vel latere altero rotundato vel truncato altero late cuneato, 4·5–12 cm. longa, 2–5·4 cm. lata, chartacea, supra glabra, subtus cinereo-tomentella, margine integra vel irregulariter lobata, e basi trinervata vel sub-5-nervata, nervis lateralibus utrinque 6–8 supra leviter impressis subtus prominulis, nervis transversis supra vix conspicuis subtus conspicuis ob pilos plus minusve delapsos ; petioli 1 cm. longitudinis vix attingentes, indumento ut foliorum pagina inferiore diu persistente. *Flores* axillares, solitarii ; pedicelli validi, ad 8 mm. longi et fere 4 mm. crassi, brunneo-tomentelli. *Sepala* 5, linearia, acuta, 7 cm. longa, 7 mm. lata, extra brunneo-tomentella, intra subflavida, pilis rigidiusculis ascendentibus tecta. *Petala* 5, 6·5 cm. longa, apice 1·7 cm. lata, basi in unguem attenuata, parum curvata, extra breviter stellato-pubescentia. *Androphorium* vix 1 cm. longum, glabrum. *Stamina* circiter 15, in fasciculas cum staminodiis alternantes disposita ; filamenta circiter 2 cm. longa, ad partem trientem in fasciculas connata ; staminodia 5, circiter 5 cm. longa, superne incrassata, pilis paucis minutis stellatis instructa. *Ovarium* 6 mm. altum, albo-hirsutum ; stylus 5 cm. longus, inferne stellato-pubescens.—*Craib*, Kew Bull. 1912, p. 147.

Sriracha, by beach, *Kerr*, 2097.

It is possible that this may eventually prove to be one of the little known Malay Archipelago species although from description I could not refer it to any of these.

Pterospermum semisagittatum, *Ham.*—F.B.I., i. p. 368 ; For. Fl. Burma, i. p. 146 ; Fl. Indo-Chine, i. p. 502.

Chiengmai, Doi Sootep, 330 m., *Kerr*, 1186.

Distr. Burma, Chittagong, Cambodia, S. India (cultivated ?)—often cultivated in the tropics.

Eriolaena Candollei, *Wall.*—F.B.I., i. p. 370 ; For. Fl. Burma, i. p. 148 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 27 ; Fl. Indo-Chine, i. p. 506.

Raheng, on banks of Meh Ping, 120 m., *Kerr*, 899 ; Phre, 120–360 m., *Luang Vanpruk*, 182 ; Ratbouri (ex *Fl. Indo-Chine*).

Distr. Burma.

Lao name, Lieng (ex *Luang Vanpruk*).

Melochia arborea, *Blanco*—Fl. Indo-Chine, i. p. 508. *M. velutina*, Beddome—F.B.I., i. p. 374 ; For. Fl. Burma, i. p. 148.
Phre, Hooey Kan, 180 m., *Luang Vanpruk*, 217.
Distr. S.E. Asia, Mauritius—often cultivated.
Wood is sometimes used for beam (*Luang Vanpruk*).

Melochia corchorifolia, *Linn.*—F.B.I., i. p. 374 ; Fl. Indo-Chine, i. p. 509.
Chiengmai, bank of Meh Ping, 300 m., *Kerr*, 852.
Distr. Cosmopolitan in the tropics.

Waltheria indica, *Linn.*—F.B.I., i. p. 374 ; Williams, Bull. Herb. Boiss., v. (1905) p. 29 ; Fl. Indo-Chine, i. p. 510.
Chiengmai, in scrub jungle, 300 m., *Kerr*, 1953.
Distr. Tropics.

Tiliaceae.

Grewia abutilifolia, *Juss.*, var. **urenaefolia**, *Pierre*—Hosseus, ii. p. 409. *G. urenaefolia*, Gagnep.—Fl. Indo-Chine, i. p. 538.
Doi Saket, 1000 m. (ex *Hosseus*).
Distr. Laos, Cochinchina (ex *Fl. Indo-Chine*).

Grewia aspera, *Roxb.* vel species arcte affinis. *G. abutilifolia*, Masters, F.B.I., i. p. 390 ; Williams, Bull. Herb. Boiss., v. (1905) p. 28, an Juss.?
Chiengmai, in deciduous jungle on Doi Sootep, 300–720 m., *Kerr*, 631.
Distr. India, Burma, Cambodia, Malaya.

Grewia disperma, *Rottl. ex Spreng.*
Phre, 120–180 m., *Luang Vanpruk*, 138.
Distr. S.E. Asia.

Grewia elatostemoides, *Coll. et Hemsl.*, Journ. Linn. Soc., xxviii. p. 27.
Chiengmai, Doi Sootep, 840 m., *Kerr*, 1809 ; Phre, 150–360 m., *Luang Vanpruk*, 190.
Distr. Upper Burma.
Lao name, Yap (ex *Luang Vanpruk*).

Grewia humilis, *Wall.*—F.B.I., i. p. 390 ; For. Fl. Burma, i. p. 160. *G. asiatica*, Linn., var. *vestita*, Gagnep., Fl. Indo-Chine, i. p. 537, non *G. vestita*, Wall.
Bangkok, *Zimmermann*, 122.
Distr. Burma.

Grewia Lacei, *Drummond et Craib*, e grege *G. tomentosae*, Juss., a qua foliorum paginae superioris indumento et venatione necnon marginum denticulis multo obscurioribus nec duplo-serratis bene cognoscitur ; a *G. hirsuta*, Vahl, atque ejusdem affinioribus, indumento diverso, foliis multo longioribus et pedunculis pedicellisque multo brevioribus facile distinguenda.
Arbuscula sarmentosa, circiter 1·5 m. alta (ex *Kerr*) ; rami virgati, ligno albo nitido, cortice fusco libero in fibras satis longas tenaciores demum soluto obtecti, juventute indumento densius intertexto primo argenteo mox ferruginescente vestiti. *Folia* anguste oblongo-lanceolata, basi leviter obliqua, ad apicem obtusum vel

acutum nonnunquam vere cuspidatum, costa autem vix excurrente, sensim angustata, 18 cm. vel plus longitudinis, 4·2 cm. latitudinis attingentia, petiolo vix 5 mm. longo hirsutissimo rufescente suffulta, versus basin quasi tricostata, nervis lateralibus ad decem paria, angulo satis acuto a costa exorientibus, leniter arcuatis in pagina superiore leviter impressis laxe hirsutis in inferiore densius pilosis, versus basin prominentibus at superne prope evanidis, nervis transversis e primariis squarrose exorientibus varie curvatis nonnunquam ramificatis 2–3 mm. inter se remotis in pagina superiore venis lepide reticulatis sub oculo armato evidentibus connexis in inferiore propter tomentum omnino occultis, margine plus minusve at semper minute saepius irregulariter aliquando obscurissime denticulata, denticulis haud rariter pilorum quasi crista ornatis, subtus tomento aequo mollissimo dense coacto primum argenteo demum rufescente munita, supra pilis rarioribus subpellucidis singulis rarius bifurcatis at nunquam stellatis conspersa. *Inflorescentia* axillaris, polygamo-monoecia, e fasciculis duobus vel pluribus prope sessilibus, bracteolis singulis hirsutis inconspicuis instructis, constituta; bractea circiter 4–6 mm. longa, ad basin deltoideam 1·5 mm. lata, superne in meram setam abeuns, valde pilosa; pedicelli 2–5 mm. longi. *Sepala* oblongo-linearia, circiter 6 mm. longa, versus basin circiter 1·5 mm. lata, marginibus alte involuta, superne usque ad apicem cucullatum et obscure mucronatum pedetentim angustata, interne aurantiaco-brunnea, externe tomento robusto fulvo nitido hirsuta. *Petala* floris ♂ circiter 1·5 mm. longa, 1 mm. lata, parum incrassata, dorso pilis fulvis hirsuta, nectario mellis colore oculo pallidiore pilorum similium annulo circumdato infra unguem 0·5 mm. attingente, ungui flavescente vix 0·5 mm. longo 1 mm. lato apice praemorso. *Androgynophorii* columna circa 1 mm. longa, 0·5 mm. diametro, plus minusve compressa, subpurpurascens; clavulus ovarium includens, iisdem pilis fulvis dense indutus; stamina circa 20 vel pauciora, filamentis circiter 2 mm. longis. *Drupa* ex quattuor pyrenis plus minus per paria accretis, constans, depressa, subquadrata, pilis longiusculis albidis 2–5 in tuberculis badii coloris junctim insidentibus instructa, juventute fusca, maturior subflava, glabrescens.—*Drummond et Craib* apud Craib, Kew Bull. 1911, p. 21.

Burma, Maymyo Plateau, 1050 m., *Lace*, 3223.

Chiengmai, in deciduous jungle on Doi Sootep, 720 m., *Kerr*, 677.

To this species probably belongs a plant collected in Laos by *Spire* (No. 547), but the material of the collection in Herb. Kew is too insufficient for a definite decision.

Grewia Microcos, *Linn.*—F.B.I., i. p. 392; For. Fl. Burma, i. p. 157.

Chiengmai plain, on waste ground, 300 m., *Kerr*, 613.

Distr. India, Burma, Assam, China, Malaya.

Allied to *G. Microcos* is a specimen collected by Luang Vanpruk (No. 170) which may probably be *G. ulmifolia*, Roxb. The collections recently received from Dr. Kerr from Sriracha contain a plant (No. 2085) which is the Indo-Chinese form (or representative) of this species, and which may eventually have to be described as a distinct species.

Grewia polygama, *Roxb.*, var. **Hosseusiana**, *Drummond* apud Hosseus, ii. p. 409.

Wang Djao, 100 m. (ex *Drummond*).

Grewia tomentosa, *Juss.*—Fl. Indo-Chine, i. p. 535 ; Hosseus, ii. p. 409.

Banks of Meh Ping near Raheng, 120 m., *Kerr*, 903 ; Wang Djao, 100 m., *Hosseus*, 69 ; Muong Pran, *Pierre*, 3834.

Distr. Java, Cambodia.

Grewia trichodes, *Voigt*. *G. pilosa*, Roxb., *non* Lamarck.

Chiengmai, 300 m., *Kerr*, 1249.

In identifying the plants belonging to this critical genus I have availed myself of the able assistance of Mr. J. R. Drummond who has spent much time in the study of this group. The present state of our knowledge of the Indo-Chinese species and the complicated synonymy of the Indian species have forbidden the giving as full references to published works as have been given throughout the rest of this paper.

Columbia flagrocarpa, *C. B. Clarke* ex *Brandis*, var. **siamica**, *Craib*, a typa ramulis paniculisque pilis longis haud vel parcissime instructis, petiolis tenuioribus paulo longioribus, foliis basi vix tam obliquis, fructusque umbonis pilis minus rigidis.—*Craib*, Kew Bull. 1911, p. 23.

Chiengmai, mixed jungle on Doi Sootep, 450–540 m., *Kerr*, 895, 895a.

At first sight the variety is markedly different from the type in the total or almost total suppression of the rather long stiffish hairs on the branchlets and panicles. The type is represented by Clarke's fruiting Chittagong specimens only and the fruit except for the rather stiffer hairs on the umbo is very similar to that of the Siam plant.

Columbia floribunda, *Wall.*—F.B.I., i. p. 393 ; For. Fl. Burma, i. p. 156 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 28 ; Fl. Indo-Chine, i. p. 549 ; Hosseus, ii. p. 403.

Chiengmai, Doi Sootep, 660 m., *Kerr*, 1325, *Hosseus*, 576 (as to leaves only) ; Koh Yai, *Hosseus*, 85.

Distr. Burma, Assam, Yunnan.

Triumfetta pseudocana, *Sprague et Craib*, Kew Bull. 1911, p. 23. *T. cana*, Lawson, F.B.I., i. p. 396, *non* Blume. *T. tomentosa*, Gagnep., Fl. Indo-Chine, i. p. 552, *vix* Bojer.

Chiengmai, Doi Sootep, 300–720 m., *Kerr*, 810.

Distr. India, China, Tonkin, Malaya, Philippines.

Triumfetta procumbens, Williams, Bull. Herb. Boiss., v. (1905) p. 28, *non* Forst. f.

The sheet quoted by Williams l.c. contains specimens belonging to two distinct species and moreover both specimens were collected in the island of Phu Quoc in Cochinchina and not in Siam.

Corchorus acutangulus, *Lamk.*—F.B.I., i. p. 398 ; Fl. Indo-Chine, i. p. 558.

Chiengmai, among grass, 300 m., *Kerr*, 855.

Distr. Tropics.

Muntingia Calabura, *Linn.*—Fl. Indo-Chine, i. p. 562.
Bangkok, *Zimmermann*, 6.
Introduced from Trop. America.

Elaeocarpus floribundus, *Blume*—F.B.I., i. p. 401 ; For. Fl. Burma, i. p. 167 ; Fl. Indo-Chine, i. p. 577.
Chiengmai, Doi Sootep, 720 m., *Kerr*, 689a.
Distr. N. India, Burma, Cambodia, Malaya.

Elaeocarpus lacunosus, *Wall.*—For. Fl. Burma, i. p. 168 ; Fl. Indo-Chine, i. p. 579.
Phre, 150 m., *Luang Vanpruk*, 202.
Distr. Indo-China.

Elaeocarpus siamensis, *Craib*, ex affinitate *E. Wallichii*, Kurz, a quo petiolis tomentellis, foliis minoribus basi plerumque cuneatis facile distinguenda.
Arbor circiter 9 m. alta (ex *Kerr*), ramulis teretibus juventute dense puberulis mox fere glabris cortice rubro vel cinereo-rubro parce lenticellato obtectis. *Folia* lanceolata vel ovato-lanceolata, apice acuminata, basi interdum inaequalia, cuneata vel obtusa, 7–14 cm. longa, 2·6–6 cm. lata, chartacea, supra costa tantum pubescentia, mox fere glabra, subtus costa nervisque praecipue molliter puberula, margine glanduloso-serrulata, nervis lateralibus utrinque 11–14 intra marginem arcuatis supra leviter impressis subtus prominentibus nervis transversis supra plerumque conspicuis subtus prominulis ; petioli 1·8–2·7 cm. longi, juventute tomentelli, mox puberuli, supra apicem versus glandulis 2–3 instructi. *Racemi* ex axillis veteribus breviter pedunculati, circiter 15 cm. longi, rhachi angulata puberula ; bracteae ante anthesin deciduae ; pedicelli 6 mm. longi, breviter pubescentes. *Sepala* 5, lanceolata, obtusa, 4 mm. longa, 1·5 mm. lata, utrinque, intus parcius, imperfecte sericeo-pubescentia. *Petala* 5, alba, cuneata, fere 5 mm. longa, 4 mm. lata, fere ad medium fimbriata, parte integra ciliata intusque basin versus parce pubescentia. *Stamina* inclusa, filamentis brevibus ; antherae breviter puberulae, apice pilis longiusculis parce instructae. *Disci* glandulae 5, pubescentes. *Ovarium* 3-loculare, pubescens ; stylus deciduus, staminibus paullo brevior, apice glaber, basi ut ovario pubescens.—*Craib*, Kew Bull. 1911, p. 23.
Chiengmai, evergreen jungle on Doi Sootep, 660 m., *Kerr*, 1200.
Lao name, Mai Mun (ex *Kerr*).

Linaceae.

Reinwardtia trigyna, *Planchon*—F.B.I., i. p. 412 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 29 ; Hosseus, ii. p. 402. *R. sinensis*, Fl. Indo-Chine, i. p. 585.
Doi Intanon, 600 m., *Hosseus*, 330.
Distr. India, China, Burma.

Erythroxylon burmanicum, *Griff.*—F.B.I., i. p. 414 ; For. Fl. Burma, i. p. 171. *E. cuneatum*, Kurz—Fl. Indo-Chine, i. p. 591.
Chiengmai, Doi Sootep, 300–600 m., *Kerr*, 652.
Distr. Burma, Malaya.
Differs from typical *E. burmanicum*, in the leaves having generally fewer nerves and the reticulation being rather more prominent and open on the under surface.

Erythroxylon cambodianum, *Pierre*—Fl. Indo-Chine, i. p. 591.
Siam (ex *Fl. Indo-Chine*).
Distr. Cochinchina, Cambodia (ex *Fl. Indo-Chine*).

Malpighiaceae.

Tristellateia australasica, *A. Rich.*—F.B.I., i. p. 418 ; Fl. Indo-Chine, i. p. 593.
Bangkok, *Zimmermann*, 78.
Distr. Malaya, Philippines, Queensland, New Caledonia.

Hiptage candicans, *Hook. f.*, F.B.I., i. p. 419 ; For. Fl. Burma, i. p. 174 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 29.
Meh Teng, 360 m., *Kerr*, 1064.
Distr. Burma, Manipur, Yunnan.

Hiptage Madablota, *Gaertn.* F.B.I., i. p. 418 ; For. Fl. Burma, i. p. 173.
Chiengmai, Doi Sootep, 720 m., *Kerr*, 563.
Distr. India, Burma, China, Malay Archipelago, Philippines.

Aspidopterys hirsuta, *Juss.*—F.B.I., i. p. 421 ; For. Fl. Burma, i. p. 176.
Chiengmai, Doi Sootep, in mixed jungle, 420 m., *Kerr*, 1448.
Distr. Burma.

Aspidopterys nutans, *Hook. f.*, F.B.I., i. p. 421 ; For. Fl. Burma, i. p. 175 ; Fl. Indo-Chine, i. p. 601. *A. Roxburghiana*, Juss., forma, Hosseus, ii. p. 403.
Meh Ping, Paknampo, *Hosseus*, 21.
Distr. N. India, Indo-China.

Zygophyllaceae.

Tribulus terrestris, *Linn.*, sensu lato—F.B.I., i. p. 423 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 29.
Raheng, 120 m., *Kerr*, 904.
Distr. Tropics.

Geraniaceae.

Oxalis fontana, *Bunge*.
Chiengmai, 300 m., *Kerr*, 1440—" garden weed."
Distr. China.

Impatiens Aureliana, *Hook. f.*—Fl. Indo-Chine, i. p. 616.
Siam ? (ex *Fl. Indo-Chine*).

Impatiens Mengtszeana, *Hook. f.*, Nuov. Arch. Mus. Hist. Nat. Par., Ser. iv. x. p. 256 ; Fl. Indo-Chine, i. p. 613 (in clavi tantum).
Chiengmai, Doi Sootep, 600–900 m., *Kerr*, 590—det. Hook. f.
Distr. Yunnan.

Biophytum sensitivum, *DC.*—F.B.I., i. p. 436 ; Williams, Bull. Herb. Boiss., v. (1905) p. 217 ; Fl. Indo-Chine, i. p. 608 ; Hosseus, ii. p. 401.
Chiengmai, Doi Sootep, 300 m., *Kerr*, 805 ; Wang Djao (ex *Hosseus*).
Distr. Tropics.

Rutaceae.

Evodia triphylla, *DC.*—F.B.I., i. p. 488 ; For. Fl. Burma, i. p. 180 ; Fl. Indo-Chine, i. p. 632.

Chiengmai, in evergreen jungle on Doi Sootep, 1050–1350 m., *Kerr*, 1109, 1286.

Distr. Burma, China.

Zanthoxylum acanthopodium, *DC.*—F.B.I., i. p. 493 ; For. Fl. Burma, i. p. 181 ; Fl. Indo-Chine, i. p. 643 ; Hosseus, ii. p. 402.

Chiengmai, Doi Sootep, 1500–1650 m., *Kerr*, 1103, 1103a.

Distr. Himalaya and Khasia Hills, Burma, China.

Toddalia aculeata, *Pers.*—F.B.I., i. p. 497 ; For. Fl. Burma, i. p. 183 ; Fl. Indo-Chine, i. p. 645.

Chiengmai, Doi Sootep, 660 m., *Kerr*, 1721.

Distr. S.E. Asia, Trop. Africa, Mascerene Is.

Lao name, Pŭk Pĕm (ex *Kerr*).

Acronychia laurifolia, *Blume*—F.B.I., i. p. 498 ; For. Fl. Burma, i. p. 184 ; Fl. Indo-Chine, i. p. 646.

Sriracha, Nawng Kaw, 30 m., *Kerr*, 2063 ; Chiengmai, Doi Sootep, 900–1050 m., *Kerr*, 1983, 2299.

Distr. S.E. Asia.

Siamese name, M'Yom Pa (ex *Kerr*).

Glycosmis cochinchinensis, *Pierre*—Fl. Indo-Chine, i. p. 653. *G. pentaphylla*, Correa —Oliver, Journ. Linn. Soc., v. suppl. 2, p. 37 ; F.B.I., i. p. 500 ; For. Fl. Burma, i. p. 186 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 30 ; Craib, Kew Bull. 1911, p. 25.

Chiengmai, in scrub jungle, 300 m., *Kerr*, 1265 ; in evergreen jungle on Doi Sootep, 720 m., *Kerr*, 1806.

Distr. Throughout India, Indo-China, Malaya, Australia.

Of the above collections *Kerr*, 1265 is referable to var. *α*, Oliver, l.c. and 1806 to var. *β*.

Micromelum hirsutum, *Oliver*—F.B.I., i. p. 502 ; For. Fl. Burma, i. p. 187 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 30 ; Fl. Indo-Chine, i. p. 649.

Phre, 120-180 m., *Luang Vanpruk*, 141.

Distr. Burma, Malaya.

Micromelum pubescens, *Blume*—F.B.I., i. p. 501 ; For. Fl. Burma, i. p. 186 ; Fl. Indo-Chine, i. p. 648 ; Hosseus, ii. p. 402.

Lakon, Hooey Meh Tan, 450 m., *Kerr*, 1017 ; Kow Sabap, 690 m., *Murton*, 108 ; Kow Hoo Wen, *Murton*, 107 ; Doi Sootep (ex *Hosseus*).

Distr. Himalaya, Burma, China, Malaya.

Triphasia Aurantiola, *Lour.*—Fl. Indo-Chine, i. p. 650. *T. trifoliata*, DC.—F.B.I., i. p. 507 ; For. Fl. Burma, i. p. 192 ; Craib, Kew Bull. 1911, p. 25.

Bangkok, *Zimmermann*, 138.

Distr. Tropics.

Limonia acidissima, *Linn.*—F.B.I., i. p. 507 ; For. Fl. Burma, i. p. 192 ; Fl. Indo-Chine, i. p. 665.

Chiengmai, in mixed jungle on Doi Sootep, 330 m., *Kerr*, 1409 ; Petchabouri (ex *Fl. Indo-Chine*).

Distr. India, Burma, Yunnan.

Murraya exotica, *Linn.*—F.B.I., i. p. 502 ; For. Fl. Burma, i. p. 190 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 30 ; Williams, Bull. Herb. Boiss., v. (1905) p. 218 ; Fl. Indo-Chine, i. p. 657.

Sriracha, in evergreen jungle, 15 m., *Kerr*, 2101 ; Bangkok, *Zimmermann*, 30 ; Raheng, *Witt*, 24.

Distr. E. Asia, Australia—often cultivated in the tropics.

Clausena excavata, *Burm.*—F.B.I., i. p. 504 ; For. Fl. Burma, i. p. 188 ; Fl. Indo-Chine, i. p. 661 ; Hosseus, ii. p. 402 ; Craib, Kew Bull. 1911, p. 25, in part.

Phre, 120–180 m., *Luang Vanpruk*, 162 ; Chiengmai, in scrub jungle on Doi Sootep, 300 m., *Kerr*, 1908.

Distr. E. Himalaya, Yunnan, Malaya, Philippines.

Clausena excavata, *Burm.*, var. **villosa**, *Hook. f.*, F.B.I., i. p. 505 ; Fl. Indo-Chine, i. p. 662. *C. excavata*, Craib, Kew Bull. 1911, p. 25, in part.

Near Meh Maŭ, 300 m., *Kerr*, 1007.

Distr. Burma.

Clausena Wallichii, *Oliver ?*—F.B.I., i. p. 505.

Doi Saket, near Ban Sun Pah Suk, 600 m., *Kerr*, 1027.

I have been unable to confirm this identification by reference to any authentic material of the species.

Luvunga scandens, *Ham.*—F.B.I., i. p. 509 ; For. Fl. Burma, i. p. 191 ; Fl. Indo-Chine, i. p. 666 ; Hosseus, ii. p. 402.

Chiengmai, Doi Sootep, 660–800 m., *Hosseus*, 430, *Kerr*, 1720.

Distr. India, Burma, Cochinchina, Sumatra.

Lao name, Nam Kua Kai (ex *Kerr*).

Atalantia Griffithii, *Guillaumin*—Fl. Indo-Chine, i. p. 675. *Paramignya Griffithii*, Hook. f., F.B.I., i. p. 510 : For. Fl. Burma, i. p. 194.

Chiengmai, in evergreen jungle on Doi Sootep, 660 m., *Kerr*, 1718.

Distr. Burma, Assam [Tonkin, Hainan—ex *Fl. Indo-Chine*].

Aegle Marmelos, *Correa*—F.B.I., i. p. 516 ; For. Fl. Burma, i. p. 199 ; Fl. Indo-Chine, i. p. 682.

Petchabouri (ex *Fl. Indo-Chine*).

Distr. India, Assam, Java.

Simarubaceae.

Quassia amara, *Linn.*—Fl. Indo-Chine, i. p. 689.

Bangkok, *Zimmermann*, 67, 169.

Distr. Native of Trop. America, often cultivated in the tropics.

Picrasma javanica, *Blume*—F.B.I., i. p. 520 : For. Fl. Burma, i. p. 201 ; Fl. Indo-Chine, i. p. 699.

Meh Ping, Doi Chieng Dao, 420 m., *Kerr*, 1057 ; Phre, 156 240 m., *Luang Vanpruk*, 118, 175.

Distr. Burma, Malacca, Java.

Brucea mollis, *Wall.*—F.B.I., i. p. 521 ; For. Fl. Burma, i. p. 202 ; Fl. Indo-Chine, i. p. 698 ; Hosseus, ii. p. 402.

Chiengmai, Doi Sootep, 1000–1560 m., *Hosseus*, 432, *Kerr*, 1750.

Distr. E. Himalaya, Burma.

Brucea sumatrana, *Roxb.*—F.B.I., i. p. 521 ; For. Fl. Burma, i. p. 202 ; Fl. Indo-Chine, i. p. 698.

Chiengmai, Doi Sootep, 300 m., *Kerr*, 589, 1907.

Distr. India, Burma, China, Malaya.

Eurycoma longifolia, *Jack*—F.B.I., i. p. 521 ; For. Fl. Burma, i. p. 202 ; Williams, Bull. Herb. Boiss., v. (1905) p. 218 ; Fl. Indo-Chine, i. p. 695.

Chiengmai, Doi Sootep, 450–750 m., *Kerr*, 633, *Hosseus*, 479a.

Distr. Burma, Malaya, Philippines.

Hebonga siamensis, *Radlk.*, affinis *H. molli*, Radlk., a qua differt foliolis minoribus inaequilateris subfalcatis acuminatis.

Arbor magna, ramis 1·5 cm. crassis apice conico pilis rufis septatis tomentello conferte folia pinnata paniculasque axillares gerentibus. *Folia* 7–9-juga, foliolo terminali parvo deciduo (vel interdum abortivo ?), ad 36 cm. longa, petiolo circiter 8 cm. longo adjecto ; foliola opposita vel subalterna, ovato-lanceolata, subfalcata, inaequilatera (latere inferiore latiore vix longiore), apice in acumen lineare obtusum protracta, intermedia majora cum petiolulis 5 mm. longis ad 10 cm. longa, 3·5 cm. lata, superiora inferioraque decrescentim minora, subcoriaceo-chartacea, nervis venisque supra impressis insignia, supra praeter nervos puberulos glabra, nitidula, subtus pilis subflavidis molliuscule puberula et papillis nodiformibus ornata, inde opaca, cano-viridula. *Paniculae* pauciramosae, 14–16 cm. longae, ramis 8 cm. longis. *Reliqua* generis (cf. Radlk., Philipp. Journ. Sc., vi. 1911 p. 365) attamen ductibus resinigeris petiolulos quidem, vix vero foliolorum nervos medianos ingredientibus.

Sriracha, Nawng Kaw, 30 m., *Kerr*, 2076 (♂)—"a large tree in evergreen jungle."

Irvingia malayana, *Oliver*—F.B.I., i. p. 522. *I. Harmandiana*, Pierre—Fl. Indo-Chine, i. p. 701.

Chiengmai, Doi Sootep, 300 m., *Kerr*, 1141, 1141a.

Distr. Malacca.

Lao name, M'Mun (ex *Kerr*).

According to Kerr the kernel is edible and the oil extracted from the fruit is used for lighting.

Harrisonia Bennetii, *Hook. f.*—F.B.I., i. p. 519 ; For. Fl. Burma, i. p. 203 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 31 ; Fl. Indo-Chine, i. p. 689.

Chieng Dao, 450 m., *Kerr*, 1048, 1048a.

Distr. Burma, China, Malaya.

Lao name, Mai Chi (ex *Kerr*).

Ochnaceae.

Ochna Wallichii, *Planch.*—F.B.I., i. p. 524 ; For. Fl. Burma, i. p. 205 ; Hosseus, ii. p. 412.

Chiengmai, Doi Sootep, 300–800 m., *Kerr*, 544, *Hosseus*, 445 ; Phre, 300–600 m., *Luang Vanpruk*, 176, 199.

Distr. Burma.

Burseraceae.

Garuga pinnata, *Roxb.*—F.B.I., i. p. 528; For. Fl. Burma, i. p. 207; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 31; Fl. Indo-Chine, i. p. 720.

Near Pang Pooey, 420 m., *Kerr*, 1002; Phre, 156–210 m., *Luang Vanpruk*, 171.

Distr. India, Malaya.

Protium serratum, *Engler*—Fl. Indo-Chine, i. p. 722. *Bursera serrata*, Colebr.—F.B.I., i. p. 530; For. Fl. Burma, i. p. 208.

Chiengmai, in eng jungle, 300 m., *Kerr*, 581.

Distr. Bengal, Burma, Assam.

Canarium Kerrii, *Craib*, facie *C. resinifero*, Brace ex King, similis, sed foliolis fere glabris, inflorescentiae rhachi breviter parce puberula, drupa paullo breviore basi rotundata distincta.

Arbor parva vel mediocris (ex *Kerr*); ramuli teretes, juventute fulvo-tomentelli vel villosi, demum puberuli vel fere glabri, cortice rubro-brunneo lenticellato striato obtecti. *Folia* 7–9-foliolata, 22–29 cm. longa; petiolus communis 11·5–14 cm. longus, cum rhachi sulcatus minuteque puberulus; stipulae deciduae, lineari-lanceolatae, ad 9 mm. longae, fulvo-villosae; foliola opposita, variabilia, plerumque oblonga vel ovato-lanceolata, apice breviter acuminata, obtusa, basi interdum inaequalia, cuneata, truncata vel cordata, 8–15·5 cm. longa, 4·3–8·5 cm. lata, rigide chartacea, margine subintegra, glabra nisi costa supra, costa nervisque primariis subtus puberulis, nervis lateralibus utrinque 10–13 intra marginem arcuatis supra prominulis subtus prominentibus, nervulis utrinque prominulis; petioluli puberuli, 5–13 mm. longi, foliolo terminali a lateralibus 2–2·8 cm. distante. *Inflorescentia* ♂ e cymis racemose dispositis 6·5–9·5 cm. longa, pedunculo communi 6–9 cm. longo, pedunculis partialibus ad 1·5 cm. longis; bracteae lineari-lanceolatae, 5 mm. longae, utrinque pubescentes. *Calyx* 4 mm. longus, 2·5 mm. diametro, lobis 3 brevibus, extra breviter adpresse pilosulus. *Corolla* longe exserta, vix 1 cm. longa, petalis 3 lineari-oblanceolatis indumento extra ut calyce. *Stamina* 6, filamentis 6 mm. longis ad medium in tubum connatis. *Ovarii* rudimentum parvum, breviter hirsutum. *Inflorescentia* ♀ ignota. *Infructescentia* quam inflorescentia ♂ dimidio brevior. *Drupa* ovoidea, 3 cm. alta, 2 cm. diametro, glabra, sicco nigra, endocarpio ligneo 2-2·5 mm. lato.—*Craib*, Kew Bull. 1911, p. 26; Fl. Indo-Chine, i. p. 716.

Chiengmai, in mixed jungle at foot of Doi Sootep, 300 m., *Kerr*, 605.

Distr. Cochinchina, Chaudoc (ex *Fl. Indo-Chine*).

Meliaceae.

Azadirachta indica, *Juss. f.*—Williams, Bull. Herb. Boiss., v. (1905) p. 218; Fl. Indo-Chine, i. p. 730. *Melia Azadirachta*, Linn.—F.B.I., i. p. 544; For. Fl. Burma, i. p. 212; Craib, Kew Bull. 1911, p. 27.

Chiengmai, 300 m., *Kerr*, 542; Bangkok, *Zimmermann*, 100.

In a note Kerr says this tree may be merely cultivated as it occurs always near houses. The flowers and young leaves, which are bitter, are boiled and eaten with rice.

Lao name, Saliem (ex *Kerr*).

Azadirachta indica, *Juss. f.*, var. **siamensis**, *Valeton*.

Pl. Bogor. Excicc., 141.

Intruduced to Buitenzorg Gardens from Siam.

Melia Azedarach, *Linn.*—F.B.I., i. p. 544; For. Fl. Burma, i. p. 212; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 31; Hosseus, ii. p. 389; Fl. Indo-Chine, i. p. 727.

Raheng (ex *Hosseus*).

Distr. India, Indo-China, Malay Archipelago.

Melia Toosendan, *Sieb. et Zucc.*—King, Journ. As. Soc. Beng., lxiv. p. 20; Fl. Indo-Chine, i. p. 729.

Muang Prow, Meh Kaut, 450 m., *Kerr*, 1034.

Distr. Japan, Khasia, Manipur, Sumatra.

Lao name, Mai Krien (ex *Kerr*).

Chisocheton divergens, *Blume*, var. **robustus**, *Valeton*.

Pl. Bogor. Exsicc., 145.

Introduced to Buitenzorg Gardens from Siam.

Aglaia odorata, *Lour.*—F.B.I., i. p. 554; Williams, Bull. Herb. Boiss., v. (1905) p. 219; Fl. Indo-Chine, i. p. 756.

Meh Ping, Kampeng, in mixed jungle, *Kerr*, 2032.

Distr. China to Malaya—often cultivated.

Lao name, Mai K'Yom (ex *Kerr*).

Amoora gigantea, *Pierre*, ex descr. *Aglaia gigantea*, Pelligrin, Fl. Indo-Chine, i. p. 769.

Sriracha, Nawng Kai Ploi, in evergreen jungle, 90 m., *Kerr*, 2123.

Distr. Laos, Cambodia, Cochinchina (ex *Fl. Indo-Chine*).

Siamese name, Ta Süa Bai Lek (ex *Kerr*).

Amoora polystachya, *Hook. f. et Jackson*. *A. Rohituka*, Wight et Arn.—F.B.I., i. p. 559; For. Fl. Burma, i. p. 220; Williams, Bull. Herb. Boiss., v. (1905) p. 218; Craib, Kew Bull. 1911, p. 27.

Chiengmai, Doi Sootep, 330–900 m., *Kerr*, 713, 1451.

Distr. India, China, Malay Peninsula, Sumatra.

Lao name, Mai Hahn Kahn (ex *Kerr*).

Walsura robusta, *Roxb.*—F.B.I., i. p. 565; For. Fl. Burma, i. p. 223; Fl. Indo-Chine, i. p. 785.

Phre, 156–240 m., *Luang Vanpruk*, 116, 120.

Distr. Indo-China.

Walsura villosa, *Wall.*—F.B.I., i. p. 564; For. Fl. Burma, i. p. 223; Williams, Bull. Herb. Boiss., v. (1905) p. 219; Fl. Indo-Chine, i. p. 788.

Meh Kung, 450 m., *Kerr*, 1023; Phre, 156–240 m., *Luang Vanpruk*, 121.

Distr. Burma, Cochinchina.

Lao name, Mai Ki Law (ex *Kerr*).

Heynea trijuga, *Roxb.*—F.B.I., i. p. 565; Fl. Indo-Chine, i. p. 791. *Walsura trijuga*, Kurz, For. Fl. Burma, i. p. 225.

Chiengmai, Doi Sootep, 300–900 m., *Kerr*, 591, 1762.

Distr. India, Burma, Yunnan, Malay Peninsula.

Both plants quoted belong to the form *pubescens* (Kurz, pro. sp.).

Chukrasia velutina, *Roemer*—For. Fl. Burma, i. p. 227. *C. tabularis*, A. Juss., var. *velutina*, King—Fl. Indo-Chine, i. p. 781. *C. tabularis*, F.B.I., i. p. 568, in part.

Phre, Hooey Yen, 210 m., *Luang Vanpruk*, 205.

Distr. Burma, Cochinchina.

Lao name, Yom Hin (ex *Luang Vanpruk*).

Olacaceae.

Olax scandens, *Roxb.*—F.B.I., i. p. 575; For. Fl. Burma, i. p. 233; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 31; Fl. Indo-Chine, i. p. 814. *Loranthus securidacoides*, Warb. apud De Willd., Pl. Nov. Herb. Hort. Then., Tab. lxxxi.

Chiengmai, Doi Sootep, 300 m., *Kerr*, 1222; Bangkok, *Zimmermann*, 119; Lem Tong Lan, *Murton*, 127.

Distr. India, Burma, China, Java.

Anacalosa ilicoides, *Mast.*, F.B.I., i. p. 580; Fl. Indo-Chine, i. p. 817.

Chiengmai, Doi Sootep, 600–750 m., *Kerr*, 1192.

Distr. Khasia.

Cansjera Rheedei, *Gaertn.*—F.B.I., i. p. 582; For. Fl. Burma, i. p. 237; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 32; Fl. Indo-Chine, i. p. 809; Williams, Bull. Herb. Boiss., iv. (1904) p. 1028.

Sriracha, in evergreen jungle, 30 m., *Kerr*, 2103; Lamputtyang, *Murton*, 45.

Distr. S.E. Asia to Australia.

Opilia amentacea, *Roxb.*—F.B.I., i. p. 583; For. Fl. Burma, i. p. 238; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 32; Fl. Indo-Chine, i. p. 804.

Muang Prow, Ban Long Kaut, by a stream, 600 m., *Kerr*, 1030.

Distr. Tropics of Old World.

Icacinaceae.

Pittosporopsis, *Craib*, gen. *Apodyti*, E. Mey., affine, inflorescentia axillari tantum, calyce majore 5-partito, petalis apice induplicato-valvatis inferne apertis, antherarum connectivo producto, stylo haud excentrico distinctum.

Flores hermaphroditi. *Calyx* 5-partitus, diu persistens. *Petala* 5, spatulata, apice induplicato-valvata, basi aperta. *Stamina* 5, petalis alterna iisque basi brevissime adnata; filamenta complanata, superne subito contracta; antherae oblongae, basi bilobae, dorso affixae, connectivo apice producto. *Discus* ovario adnatus. *Ovarium* ellipsoideum, uniloculare, ovulis 2 pendulis; stylus sub anthesin rectus, mox basin versus geniculatus, diu persistens. *Fructus* immaturus tantum visus; pedicelli nodus supremus articulatus, incrassatus, cum fructu deciduus.—*Frutex* inermis. *Folia* simplicia, alterna, chartacea, margine cartilagineo undulato. *Inflorescentia* axillaris, cymosa, floribus majusculis.

Species unica.

Pittosporopsis Kerrii, *Craib.*

Frutex ad 4·5 m. altus (ex *Kerr*); ramuli subteretes, glabri, cortice fusco-brunneo obtecti. *Folia* oblongo-oblanceolata vel oblonga, apice acuminata vel fere caudato-acuminata, subobtusa, basi cuneata, 14–21 cm. longa, 4–6·5 cm. lata, chartacea, utrinque glabra nisi costa subtus minute parceque pilosula, margine cartilagineo undulato, nervis lateralibus utrinque 5–7 intra marginem arcuatis supra leviter impressis subtus cum nervis transversis prominentibus; petioli 2 cm. longi, supra canaliculati, fere glabri. *Inflorescentia* axillaris, pedunculo communi 1·5-2·5 cm. longo; cymulae 3-florae, pedunculo circiter 4 mm. longo suffultae; pedicelli breves, nodis supremis articulatis, bracteolis 3–4 parvis infra articulationem instructi. *Calycis* lobi late deltoidei, acuti, 1 mm. longi, 1 mm. lati, extra pilosuli, sub anthesin reflexi, infructescentes fructui appressi. *Petala* elongato-spatulata, circiter 7 mm. longa, 2 mm. lata, extra medio parcissime pilosula. *Filamenta* complanata, superne subito contracta, 5 mm. longa, basi 0·75 mm. lata; antherae versatiles, oblongae, basi bilobae, fere 2 mm. longae, connectivo apice producto. *Discus* cupularis, ovario adnatus, circiter 0·75 mm. altus. *Ovarium* glabrum, circiter 1·75 mm. altum, ovulis 2 pendulis; stylus crassiusculus, apice brevissime bifidus, 3 mm. longus, glaber. *Fructus* immaturus, cum pedicelli nodo supremo leviter incrassato deciduus.—*Craib*, Kew Bull. 1911, p. 28; Fl. Indo-Chine, i. p. 832.

Chiengmai, in evergreen jungle on Doi Sootep, 750 m., *Kerr*, 558.

Distr. Burma, S. Shan States, *Macgregor* (Herb. Kew et Calcutta).

Ilicaceae.

Ilex sulcata, *Wall.*—F.B.I., i. p. 604.

Chiengmai, in evergreen jungle on Doi Sootep, 660–900 m., *Kerr*, 1120, 1784.

Distr. Bengal, Assam, Burma.

Probably identical with *I. Godayam*, Kurz, For. Fl. Burma, i. p. 245 (ex *Brandis*).

Celastraceae.

Euonymus similis, *Craib*, ab *E. glabro*, Roxb., floribus majoribus, petalis fimbriatis recedit.

Arbuscula circiter 7·5 m. alta (ex *Kerr*); ramuli glabri, primo subquadrangulares, viridi-straminei, mox teretes, cortice rubro-brunneo obtecti. *Folia* plerumque oblanceolata vel obovato-oblanceolata, apice acuminata, acutiuscula vel obtusa, basi cuneata, 7–12·5 cm. longa, 3–6 cm. lata, coriacea, utrinque glabra, margine revoluto superne serrata, nervis lateralibus utrinque 6–8 supra conspicuis subtus prominulis, nervis transversis utrinque plerumque subconspicuis; petioli ad 1 cm. longi, supra canaliculati. *Cymae* axillares, dichotomae: pedunculi communes ad 5·5 cm. longi, glabri; pedicelli circiter 7 mm. longi, inferne articulati. *Sepala* exteriora rotundata, circiter 2 mm. diametro, interiora transverse oblonga, 3 mm. longa, 5 mm. lata, omnia ciliata. *Petala* 5, oblongo-cuneata, superne fimbriata, 6 mm. longa, 5 mm. lata, glabra. *Filamenta*

circiter 2·5 mm. longa. *Stylus* obtusus, 1·5 mm. altus. *Ovula* 2, superposita. *Fructus* vix 1 cm. altus, pallide viridis vel brunnescens. —*Craib*, Kew Bull. 1912, p. 147. *E. sp. n.*, Craib, Kew Bull. 1911, p. 29.

Chiengmai, in evergreen jungle on Doi Sootep, 720–1200 m., *Kerr*, 649, 736, 736a.

Euonymus sootepensis, *Craib*, ab affini *E. Griffithii*, Kurz, foliis multo latioribus, nervis tenuioribus recedit.

Caules scandentes, quadrangulares vel plus minusve alati, cortice viridi-stramineo obtecti, glabri. *Folia* late obovata, elliptica vel subrotundata, apice breviter acuminata, acuta, basi rotundata vel subcordata, 3–7 cm. longa, 1·7–5·6 cm. lata, chartacea vel rigide chartacea, sessilia vel subsessilia, utrinque glabra, margine serrulata vel crenulato-serrata, nervis lateralibus utrinque 4–5 pagina utraque subprominulis, supra fusco- subtus pallide viridia. *Cymae* ad 7-florae, axillares, solitariae et praeterea plerumque duobus decussatis suboppositis circiter 3 mm. supra axillas additis ; pedunculus communis 2 cm. longitudinis paullo superans, glaber, basi bractea decidua vix 3 mm. longa brunnea instructus ; pedicelli vix 5 mm. longi. *Calyx* ad medium lobatus, lobis apice rotundatis 1·25 mm. longis vix 2·5 mm. latis pauperrime ciliolatis. *Petala* 4, viridia (ex *Kerr*), subrotundata, 3·5 mm. diametro, subintegra. *Filamenta* circiter 0·5 mm. longa. *Stylus* 0 ; ovula pendula.—*Craib*, Kew Bull. 1912, p. 148.

Chiengmai, in evergreen jungle on Doi Sootep, 900 m., *Kerr*, 1835.

Gymnosporia Wallichiana, *Lawson*, F.B.I., i. p. 621 ; Fl. Indo-Chine, i. p. 886.

Muong Pran (ex *Fl. Indo-Chine*).

Distr. India, Burma.

Celastrus monosperma, *Roxb.*—F.B.I., i. p. 618, in part ; For. Fl. Burma, i. p. 252.

Chiengmai, in evergreen jungle on Doi Sootep, 900–1560 m., *Kerr*, 1366, 1751, 1814.

Distr. Assam, Malay Peninsula.

Celastrus paniculata, *Willd.*—F.B.I., i. p. 617 ; For. Fl. Burma, i. p. 252 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 32 ; Williams, Bull. Herb. Boiss., v. (1905) p. 224 ; Fl. Indo-Chine, i. p. 890.

Chiengmai, Doi Sootep, 320 m., *Kerr*, 586 ; Phre, 120–180 m., *Luang Vanpruk*, 158.

Distr. India, Malaya.

Lophopetalum Wallichii, *Kurz*—F.B.I., i. p. 615 ; For. Fl. Burma, i. p. 255 ; Williams, Bull. Herb. Boiss., v. (1905) p. 223 ; Fl. Indo-Chine, i. p. 878.

Chiengmai, Doi Sootep, 660 m., *Kerr*, 1650.

Distr. Burma.

Lao name, Mai Neua Neua (ex *Kerr*).

L. celastroides, Lawson, F.B.I., l.c. is probably only a small leaved form of this species.

Salacia prinoides, *DC.*—F.B.I., i. p. 626 ; For. Fl. Burma, i. p. 260 ; Fl. Indo-Chine, i. p. 905.
Palat, 300 m., *Kerr*, 1008.
Distr. India, Burma, Malaya.

Hippocratea indica, *Willd.*—F.B.I., i. p. 624 ; For. Fl. Burma, i. p. 256 ; Fl. Indo-Chine, i. p. 898.
Siam, *Schomburgk* (ex *Fl. Indo-Chine*).
Distr. Tropical Asia and Africa.

Rhamnaceae.

Ventilago calyculata, *Tul.*—F.B.I., i. p. 631 ; For. Fl. Burma, i. p. 262 ; Coll. et. Hemsl., Journ. Linn. Soc., xxviii. p. 33 ; Fl. Indo-Chine, i. p. 912.
Hooey Meh Tan, 420 m., *Kerr*, 1015.
Distr. India, Malaya.

Zizyphus Jujuba, *Lamk.*—F.B.I., i. p. 632 ; For. Fl. Burma, i. p. 266 ; Williams, Bull. Herb. Boiss., v. (1905) p. 32 ; Hosseus, ii. p. 409 ; Fl. Indo-Chine, i. p. 918.
Chiengmai, 300 m., *Kerr*, 1229 ; Kampeng (ex *Hosseus*).
Distr. Afghanistan eastwards to China, Malaya, Australia, Africa.
Lao name, Mă Tan (ex *Kerr*).

Zizyphus Oenoplia, *Mill.*—F.B.I., i. p. 634 ; For. Fl. Burma, i. p. 266 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 33 ; Fl. Indo-Chine, i. p. 929.
Chiengmai, Doi Sootep, 300–900 m., *Kerr*, 696.
Distr. Tropical Asia, Australia.

Zizyphus rugosa, *Lamk.*—F.B.I., i. p. 636 ; For. Fl. Burma, i. p. 265 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 33.
Chiengmai, in deciduous jungle on Doi Sootep, 300–720 m., *Kerr*, 564, 1077, 1077a ; Phre, 120–180 m., *Luang Vanpruk*, 146.
Distr. India, Burma.

Berchemia floribunda, *Wall.*—F.B.I., i. p. 637 ; For. Fl. Burma, i. p. 264.
Chiengmai, Doi Sootep, 900 m., *Kerr*, 1774.
Distr. N. India, Khasia, Yunnan.

Colubrina asiatica, *Brongn.*—F.B.I., i. p. 642 ; For. Fl. Burma, i. p. 268 ; Williams, Bull. Herb. Boiss., v. (1905) p. 32 ; Hosseus, ii. p. 408 ; Fl. Indo-Chine, i. p. 930.
Paknampo, 34 m., *Hosseus*, 20 ; Chiengmai, in mixed jungle on Doi Sootep, 330 m., *Kerr*, 1461 ; Sriracha, sea-shore, *Kerr*, 2042.
Distr. India, Burma, China, Malaya, Australia, Trop. Africa.

Colubrina pubescens, *Kurz*—F.B.I., i. p. 642 ; For. Fl. Burma, i. p. 269.
Phre, 120–180 m., *Luang Vanpruk*, 165.
Distr. Burma.

Gouania leptostachya, *DC.*—F.B.I., i. p. 643 ; For. Fl. Burma, i. p. 269 ; Fl. Indo-Chine, i. p. 933.
Chiengmai, Meh Hia, by a stream, 330 m., *Kerr*, 1952.
Distr. N. India, Indo-China, Malaya.

Tetrastigma cruciatum, *Craib et Gagnep.*, a *T. tuberculato*, Blume (sub *Cisso*), stigmate grandi sessili cruciato valde distinctum.

Ramuli scandentes, glabri, primo fere teretes, graciles, mox compressi, dense tuberculati. *Folia* trifoliolata, petiolis 2·7–4·5 cm. longis suffulta; foliola oblanceolata vel anguste obovata, apice acuminata, mucronata, basi terminalia in petiolulum attenuata, lateralia obtusa, parum obliqua, 8–11·5 cm. longa, 3·5–5·5 cm. lata, subcoriacea, utrinque glabra, juventute distanter crasse serrata, mox subintegra, subsinuata, nervis lateralibus utrinque 4–6 intra marginem arcuatis pagina neutra valde conspicuis; petioluli semicentimetrales, inter se aequales. *Inflorescentia* axillaris, globosa, congesta, 1 cm. diametro; pedicelli compressi, 1–2 mm. longi, dense pilosi; alabastra cylindracea, apice dilatato-truncata, papillata. *Calyx* brevis, cupuliformis, pilosulus, dentibus triangularibus acutis. *Petala* alba, deltoidea, fere 2 mm. longa, 1·25 mm. lata, ad marginem apicemque papillata, corniculata, corniculis brevibus divaricatis papillatis 0·5 mm. longis. *Discus* brevis, annularis, ad basin ovarii adnatus, ovarium strangulans. *Stamina* fertilia non visa. *Ovarium* glabrum, vix 1 mm. altum, loculis 2 biovulatis; stigma sessile, cruciatum, circiter 1 cm. diametro, ramis 4 divaricatis apice sensim dilatatis truncato-emarginatis.—*Craib et Gagnep.* apud Craib, Kew Bull. 1911, p. 30; Fl. Indo-Chine, i. p. 948.

Chiengmai, in thick evergreen jungle on Doi Sootep, 900 m., *Kerr*, 599.

Mons. Gagnepain, who was recently engaged in a study of the species of *Vitis* and allied genera and who has kindly collaborated with me in the description of this species, has supplied very copious notes on two allies of this plant.

T. cruciatum differs from *T. rupestre*, Planch., in (1) its petiolules being equal and its leaflets more symmetric at the base: (2) its sessile inflorescence; (3) its corolla not all papillose: (4) its large Maltese cross-shaped stigma; and (5) its small acute calyx teeth.

From *T. glabratum*, Planch., it is distinguished by (1) its larger leaflets with equal petiolules; (2) its more condensed and much narrower inflorescence; (3) its shorter flower buds; (4) its corniculate petals; (5) its large sessile stigma; and (6) its short acute (not truncate) calyx teeth.

Mons. Gagnepain further remarks that *T. cruciatum* possesses the largest stigma of the species examined by him.

Tetrastigma lanceolarium, *Planch.* p.p. *Vitis lanceolaria*, Roxb. —F.B.I., i. p. 660; For. Fl. Burma, i. p. 272.

Chiengmai, Doi Sootep, 720 m., *Kerr*, 919.

Distr. India, Burma, Assam, China, Malay Peninsula.

Tetrastigma serrulatum, *Planch.*—Gagnep., Lec. Not. Syst., i. p. 322. *Vitis capriolata*, Don—F.B.I., i. p. 659.

Chiengmai, in evergreen jungle on Doi Sootep, 1260 m., *Kerr*, 1505.

Distr. N. India, Khasia, China.

Parthenocissus semicordata, *Planch.* *Vitis semicordata*, Wall.—King, Journ. As. Soc. Beng., lxv. p. 113. *V. himalayana*, Brandis, var. *semicordata*, Lawson, F.B.I., i. p. 656.

Chiengmai, in evergreen jungle on Doi Sootep, 1590 m., *Kerr*, 1296.

Distr. Sikkim, Khasia.

Cissus adnata, *Roxb.*—Fl. Indo-Chine, i. p. 965. *Vitis adnata*, Wall.—F.B.I., i. p. 649, in part; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 33.

Chiengmai, in scrub jungle at foot of Doi Sootep, 330 m., *Kerr*, 1233; Petchabouri (ex *Fl. Indo-Chine*).

Distr. India, throughout Indo-China, Malaya.

Cissus aristolochioides, *Planch.*—Fl. Indo-Chine, i. p. 974.

Petchabouri, Mt. Taleng (ex *Fl. Indo-Chine*).

Cissus assamica, *Craib*, comb. nov., Kew Bull. 1911, p. 31; Fl. Indo-Chine, i. p. 966. *Vitis assamica*, Lawson, F.B.I., i. p. 648. *V. adnata*, F.B.I., i. p. 649, in part.

Chiengmai, in scrub jungle at foot of Doi Sootep, 330 m., *Kerr*, 1232.

Distr. Assam, Bengal, (Burma ?).

Planchon in his monograph includes this plant under *C. adnata* as a "forma glabrior."

Cissus carnosa, *Lamk.* *Vitis carnosa*, Wall.—F.B.I., i. p. 654. *Cayratia carnosa*, Gagnep.—Fl. Indo-Chine, i. p. 981.

Chiengmai, in scrub jungle, 300 m., *Kerr*, 1228.

Distr. India, Burma, Assam, China, Malaya.

Cissus convolvulacea, *Planch.*—Fl. Indo-Chine, i. p. 972.

Near Muong Pran (ex *Fl. Indo-Chine*).

Distr. Cambodia (ex *Fl. Indo-Chine*).

Cissus discolor, *Blume*—Fl. Indo-Chine, i. p. 969. *Vitis discolor*, Dalz.—F.B.I., i. p. 647; For. Fl. Burma, i. p. 271, in clavi tantum; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 33.

Chiengmai, in evergreen jungle on Doi Sootep, 720–1350 m., *Kerr*, 726.

Distr. India, Burma, Assam, Malaya.

Cissus Kerrii, *Craib*, ab affini *C. repente*, Lamk., foliis lobatis valde distincta.

Planta disco excepto glaberrima; ramuli teretes, sulcati, 3 mm. diametro, juventute lepidoti, mox ut in *V. repente* albi. *Folia* ambitu interdum reniformia plerumque late ovata vel rotundata, basi cordata, 3-lobata lobis deltoideis apice acutis mucronatis, 6–11 cm. longa, 5–10·5 cm. lata, chartacea, margine remote denticulato-serrata, trinervata, nervis secondariis (e costa ortis) utrinque 4–5 omnibus utrinque prominulis nervis transversis subtus conspicuis; petioli 2–6·5 cm. longi; stipulae deciduae, oblongae, basi truncatae, apice rotundatae, 5 mm. longae, 2·5 mm. latae; cirrhi oppositifolii, simplices. *Cymae* oppositifoliae, umbellatim dispositae, pedunculo communi ad 4 cm. longo, pedunculis partialibus 1–1·5 cm. longis; bracteae parvae. *Calyx* cupuliformis, 1 mm. diametro. *Petala* 4,

oblonga, cucullata, 2·5 mm. longa, 1·75 mm. lata. *Stamina* 4, filamentis 1·25 mm. longis. *Discus* ovario aequialtus, margine crenulato interdum parcissime puberulo. *Stylus* brevis, obtusus.—*Craib*, Kew Bull. 1911, p. 31.

Chiengmai, in scrub jungle, 300 m., *Kerr*, 1238.

According to Gagnepain, Fl. Indo-Chine, i. p. 971, *C. Kerrii* is identical with *C. modeccoides*, Planch., var. *subintegra*, Gagnep. The species of Planchon is not represented in Herb. Kew but Gagnepain, l.c., remarks that there are forms connecting *C. Kerrii*, which differs from *C. modeccoides* only in the lobing of the leaf, and *C. modeccoides*.

Cissus pedata, *Lamk.* *Vitis pedata*, Vahl—F.B.I., i. p. 661; For. Fl. Burma, i. p. 273. *Cayratia pedata*, Gagnep.—Fl. Indo-Chine, i. p. 979.

Chiengmai, Doi Sootep, 330 m., *Kerr*, 1210; Muong Pran (ex *Fl. Indo-Chine*).

Distr. India, Burma, Assam, Java.

Cissus quadrangularis, *Linn.* *Vitis quadrangularis*, Wall.—F.B.I., i. p. 645.

Sriracha, climbing on bushes along sea-shore, *Kerr*, 2035.

Distr. Trop. Africa, Arabia, India, Burma, Malay Archipelago.

Cissus repens, *Lamk.*—Fl. Indo-Chine, i. p. 970. *Vitis repens*, Wight et Arn.—F.B.I., i. p. 646; For. Fl. Burma, i. p. 275; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 34.

Chiengmai, Doi Sootep, in evergreen jungle, 750 m., *Kerr*, 1968.

Distr. S.E. Asia.

Cissus siamica, *Planch.*—Fl. Indo-Chine, i. p. 971.

Petchabouri, near Caulay (ex *Fl. Indo-Chine*).

Ampelocissus Martini, *Planch.*, DC. Monogr., v. p. 373; Fl. Indo-Chine, i. p. 992. *Vitis barbata*, Wall., var. *trilobata*, King—Williams, Bull. Herb. Boiss., v. (1905) p. 216.

Chiengmai, in mixed jungle at foot of Doi Sootep, 330 m., *Kerr*, 1206; Petchabouri (ex *Fl. Indo-Chine*).

Distr. Cambodia, Cochinchina, Malay Peninsula (Hong Kong, cult.), [Laos, Annam, Philippines, ex *Fl. Indo-Chine*].

Leea acuminata, *Wall.*—Clarke, Journ. Bot. 1881, p. 102; Fl. Indo-Chine, i. p. 941. *L. sambucina*, F.B.I., i. p. 666, in part.

Siam (ex *Fl. Indo-Chine*).

Leea javanica, *Blume*?

Chiengmai, in deciduous jungle on Doi Sootep, 720 m., *Kerr*, 663.

Leea macrophylla, *Hornem.*—F.B.I., i. p. 664; Clarke, Journ. Bot. 1881, p. 137; Fl. Indo-Chine, i. p. 943.

Chiengmai, in mixed jungle on Doi Sootep, 330 m., *Kerr*, 1340.

Distr. India, Burma, Assam [Laos, ex *Fl. Indo-Chine*].

Leea sp. *L. sambucina*, Hosseus, ii. p. 409 *an* Willd?

Wang Djao, 100 m., *Hosseus*, 134.

Sapindaceae.

Cardiospermum Halicacabum, *Linn.*—F.B.I., i. p. 670 ; Williams, Bull. Herb. Boiss., v. (1905) p. 961 ; Hosseus, ii. p. 408 ; Fl. Indo-Chine, i. p. 1004.

Chiengmai, in scrub jungle on banks of Meh Ping, 300 m., *Kerr*, 757 ; Paknampo (ex *Hosseus*).

Distr. Tropics.

Allophylus eustachys, *Radlk.*, in conspectu *Allophylorum* auctore Radlk. (in Sitzungsber. K. bayer. Ac., xxxviii. 1908, p. 209) post *A. javensem*, Blume (p. 231) inserendus, a quo differt omnium partium hirsutie.

Arbor 7·5 m. alta (ex *Kerr*) ; rami teretes, 4 mm. crassi, ut et petioli, petioluli thyrsique pilis patulis subfusce hirsuti, cortice pallido lenticelloso-punctato. *Folia* 3-foliolata, 17–28 cm. longa, petiolo robusto teretiusculo supra sulco apice tantum manifesto exarato 17–28 cm. longo adjecto ; foliola rhombeo-lanceolata, acuminata, intermedia basi cuneata, lateralia basi valde inaequilatera in petiolulos contracta, intermedia cum petiolulo 1·5 cm. longo 12–18 cm. longa, 4–6 cm. lata, lateralia paullo minora, petiolulis 5–6 mm. longis, subrepande mucronulato-denticulata, membranacea, nervis utrinque 10–13 sat approximatis procurvis subtus prominulis in mucronulos pilosos excurrentibus, saturate viridia, opaca, supra pilis brevioribus praesertim ad nervos obviis hirtella, subtus pilis longioribus undique crebris subhirsuta margineque ciliata, epidermide valde mucigera. *Thyrsi* axillares, solitarii, simplices, robustiores, stricti, ad 20 cm. longi, rhachi striata hirsuta fere a basi cincinnos glomeruliformes sessiles crebros gerente ; alabastra 1·5 mm. diametro ; flores mediocres, breviter pedicellati. *Sepala* glabriuscula. *Petala* cochleariformia, ungui longo pilosiusculo, squama biloba villosa. *Discus*, stamina, germen puberula. *Fructus* juvenilis cocci globosi, pilis longiusculis laxe adspersi ; fructus maturus non visus.

Chiengmai, Ban Pong, 330 m., *Kerr*, 1944.

Allophylus glaber, *Radlk.*—Fl. Indo-Chine, i. p. 1014.

Siam (ex *Fl. Indo-Chine*).

Distr. Cambodia, Cochinchina (ex *Fl. Indo-Chine*).

Allophylus sootepensis, *Craib*, habitu *A. longipidi*, Radlkofer, similis sed racemis saepissime haud furcatis differt.

Fruticulus 1·2 m. altus (ex *Kerr*) ; ramuli teretes, 3 mm. diametro, fere glabri, cortice rubro-brunneo obtecti. *Folia* trifoliolata ; foliola breviter petiolulata, oblanceolata vel oblongo-lanceolata, apice acuminata, obtusa, basi terminalia cuneata, lateralia inaequalia, obtusa, foliorum ramulorum apices versus maxima, ad 19 cm. longa, 5·5 cm. lata, foliorum paulo inferius 4·5–12·5 cm. longa, 1·8–4 cm. lata, membranacea, juventute utrinque pilosula mox fere glabra, margine praecipue a medio apices versus distanter serrata, nervis lateralibus utrinque 10–11 ad marginem excurrentibus cum costa supra conspicuis subtus prominulis nervis transversis utrinque, subtus magis, conspicuis ; petioli foliorum majorum 10·5–13·5 cm. longi, minorum 3–6 cm. longi, supra canaliculati, puberuli vel fere glabri, *Thyrsi* axillares, solitarii, saepissime simplices, 7–15 cm. longi,

pedunculo communi 1·5–2·5 cm. longo, fere glabri. *Pedicelli* graciles, 2 mm. longi, glabri. *Flores* albi, mediocres, glabri. *Fructus* ignotus.—*A. varians*, Craib, Kew Bull. 1911 p. 32, *non* Radlk.

Chiengmai, thin bush about 1·2 m. high in evergreen jungle on Doi Sootep, 900 m., *Kerr*, 685.

Sapindus Rarak, *DC. Dittelasma Rarak*, Hook. f.—F.B.I., i. p. 672 ; For. Fl. Burma, i. p. 297 ; Fl. Indo-Chine, i. p. 1018.

Phre, Hooey Kamin, 165 m., *Luang Vanpruk*, 203.

Distr. Indo-China, Malaya.

Lao name, Ma Sak (ex *Luang Vanpruk*).

Sapindus ? siamensis, *Radlk.*, ob fructum ignotum dubia, si revera hujus generis affinis *S. tomentoso*, Kurz (sectionis *Dittelasma*), a quo inter alia differt germine tomento denso flavescente-albido induto.

Arbor ramis teretiusculis sulcatis 3–4 mm. crassis griseo-pubescentibus cortice nigro-fusco. *Folia* abrupte pinnata, 3–4 juga, petiolo 4–6 cm. longo adjecto 20–30 cm. longa, rhachi supra bisulcata sordide pubescente in apiculum sterilem subulatum terminata ; foliola inferiora subopposita, superiora alterna, elliptico-oblonga, utrinque obtusa vel subacuta, interdum quadammodo inaequilatera, inferiora latere exteriore, superiora latere interiore angustiora brevioraque, cum petiolulis 3–5 mm. longis 10–18 cm. longa, 4–7 cm. lata, integerrima, membranaceo-chartacea, nervis lateralibus utrinque 10–12 sat approximatis oblique erectis venisque reticulatis supra vix subtus sat prominentibus, supra praeter nervos glabriuscula, e livescenti-viride in subfuscum vergentia, nitidula, subtus molliter pubescentia pallidiora, opaca, glandulis microscopicis clavatis superficiei subadpressis (nec ut in reliquis *Sapindi* speciebus in foveolas conchiformes impressis) raris adspersa, epidermide paginae superioris e cellulis valde convexis granulato-punctatis inanibus conflata, paginae inferioris stomatum copia insigni. *Panicula* terminalis, 13–18 cm. longa, pauciramosa, rhacheos apice ramisque thyrsoideis dense cymulas (polychasia vel dichasia in cincinnos abeuntia) subsessiles gerentibus, bracteis bracteolisque subulatis pubescentibus ; flores unisexuales, 5 mm. longi et lati, oblique symmetrici, ♂ breviter, ♀ longius pedicellati, pedicellis 3–6 mm. longis basi articulatis. *Sepala* 5, breviter oblonga, obtusa, dense albide tomentosa, ciliata, intus subglabra. *Petala* 4 (infimi sede inter sepalum 3 et 5 vacua) sub disci margine inserta, subspatulata, lamina ovato-oblonga obtusiuscula concava dorso puberula intus glabra in unguem lamina paullo breviorem dorso margineque villosum attenuata, supra unguem squamulis 2 deflexis dense villoso-barbatis dorso minutim cristatis aucta. *Discus* (in floris parte superiore ante sepalum 4) unilateralis inter petalorum insertiones in lobulos tumens, glaber. *Stamina* 8, intra discum circa pistillum vel pistilli rudimentum inserta, filiformia, floris ♂ exserta, floris ♀ breviora germen vix superantia, sterilia, praeter apicem villosula, antheris breviter ovatis subapiculatis dorso supra basin emarginatam affixis introrsis glabris. *Germen* (floris ♂ rudimentarium) ad disci marginem inferiorem ante sepalum 3 et 5 insertum, trigono-ovatum, 3-sulcatum, 3-loculare, dense albide tomentosum, in stylum germen aequantem subulato-filiformem

sursum curvatum pubescentem apice incrassato-stigmatosum terminatum ; gemmulae in loculis solitariae, prope basin axeos tuberculo insidentes, erectae, apotropae, campylotropae, micropyle extrorsum infera. *Fructus* non visus.

Phre, 156–260 m., *Luang Vanpruk* 119, 191.

Lao name, Ma fueng sa (ex *Luang Vanpruk*).

Erioglossum rubiginosum, *Blume. E. edule*, Blume—F.B.I., i. p. 672 ; Williams, Bull. Herb. Boiss., v. (1905) p. 221 ; Fl. Indo-Chine, i. p. 1019.

Phre, 120–180 m., *Luang Vanpruk*, 148.

Distr. India, Indo-China to Australia.

Aphania ochnoides, *Pierre ex Lecomte*, Fl. Indo-Chine, i. p. 1037.

Muong Pran (ex *Fl. Indo-Chine*).

Distr. Cochinchina (ex *Fl. Indo-Chine*).

Zollingeria dongnaiensis, *Pierre*—Fl. Indo-Chine, i. p. 1020.

Phre, 120–180 m., *Luang Vanpruk*, 132.

Distr. Cochinchina.

Otophora cambodiana, *Pierre*—Fl. Indo-Chine, i. p. 1033.

Bangkok, *Zimmermann*, 112.

Distr. Cambodia [Laos, ex *Fl. Indo-Chine*].

Schleichera trijuga, *Willd.*—F.B.I., i. p. 681 ; For. Fl. Burma, i. p. 289 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 36 ; Fl. Indo-Chine, i. p. 1034.

Chiengmai, Doi Sootep, 300–330 m., *Kerr*, 571, 1184 ; Ban Pou, Meh Teng, 390 m., *Kerr*, 1062 ; Phre, 120–180 m., *Luang Vanpruk*, 154.

Distr. India, Burma, Malaya.

Lao name, Ma Chohk (ex *Kerr*).

Pometia tomentosa, *Teysm. et Binn.*

Muang Fang, *Hosseus*, 611.

Distr. Java, Sumatra.

Mischocarpus grandis, *Radlk.*, comb. nov. *M. pentapetalus*, Lecomte, Fl. Indo-Chine, i. p. 1028. *Pedicellia grandis*, Pierre.

Chiengmai, Doi Sootep, 900 m., *Kerr*, 1823.

Distr. Cochinchina (ex *Fl. Indo-Chine*).

Paranephelium longifoliolatum, *Lecomte*—Fl. Indo-Chine, i. p. 1027.

Meh Yuak Phre, 240 m., *Luang Vanpruk*, 232.

Distr. Laos (ex *Fl. Indo-Chine*).

Harpullia cupanioides, *Roxb.*—F.B.I., i. p. 692 ; For. Fl. Burma, i. p. 287 ; Fl. Indo-Chine, i. p. 1022.

Chiengmai, in evergreen jungle on Doi Sootep, 660 m., *Kerr*, 1791 ; Huai Tuam, 180 m., *Luang Vanpruk*, 229 ; Meh Sangon Phre, 150 m., *Luang Vanpruk*, 239.

Distr. India, Indo-China, Malaya.

Delpya muricata, *Pierre ex Radlk.*—Fl. Indo-Chine, i. p. 1015. *Sisyrolepis siamensis*, Radlk. apud Williams, Bull. Herb. Boiss., v. (1905) p. 222 ; Fl. Indo-Chine, i. p. 1053.

Bangkok, *Zimmermann*, 123 ; Petchabouri (ex *Fl. Indo-Chine*).

The writer is deeply indebted to Prof. Radlkofer for kindly naming most of the additional Siamese material. In addition to

describing the two new species of *Sapindaceae* and one of *Simarubaceae* he has kindly supplied the writer with the names of three Siamese plants mentioned in Cat. Hort. Bogor. 1866, pp. 391–2 :—

Capura sp., Phoon rieng soeän is *Otophora fruticosa*, Blume.

Harpullia sp. is *Arfeuillea arborescens*, Pierre.

Mahoeat 73 is *Erioglossum rubiginosum*, Blume.

A very doubtful record for Siam and one which must probably be deleted from the area treated in this paper is *Arytera montana* recorded by Williams for Lower Siam.

Hippocastanaceae.

Aesculus punduana, *Wall.*—F.B.I., i. p. 675 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 36. *A. assamica*, Griff.—For. Fl. Burma, i. p. 286.

Siam, *Parish*, 111.

Distr. Sikkim, Assam.

Staphyleaceae.

Turpinia nepalensis, *Wall.*—For. Fl. Burma, i. p. 292 ; Hosseus, ii. p. 408. *T. pomifera*, F.B.I., i. p. 698, in part.

Chiengmai, Doi Sootep, 1350–1650 m., *Hosseus*, 504, *Kerr*, 1752.

Distr. India, Burma, China.

Turpinia pomifera, *Wall.*—F.B.I., i. p. 698, in part ; For. Fl. Burma, i. p. 292 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 36 ; Hosseus, ii. p. 408.

Chiengmai, Doi Sootep, 720–900 m., *Kerr*, 536, *Hosseus*, 457 ; between Muang Prow and Chieng Dao, 600 m., *Kerr*, 1047.

Distr. India, throughout Indo-China, Malaya.

Sabiaceae.

Meliosma simplicifolia, *Roxb.*—F.B.I., ii. p. 5 ; For. Fl. Burma, i. p. 301.

Muang Prow, Hooey Meh Wah, 540 m., *Kerr*, 1041.

Distr. India, Burma, Assam, Yunnan.

Meliosma simplicifolia, *Roxb.*, var. **sootepensis**, *Craib*, a typo ramulorum indumento parciore, cortice rubro-brunneo haud nigro, foliis oblongo-oblanceolatis apice obtusis vix acuminatis, integris, foliorum maturorum nervis supra leviter impressis subtus valde prominentibus differt.—*Craib*, Kew Bull. 1911, p. 33.

Chiengmai, Doi Sootep, 720 m., *Kerr*, 535.

According to Dr. Kerr this tree, which is about 12 m. high has the young branches mostly hollow and inhabited by a small black ant.

Anacardiaceae.

Rhus semialata, *Murr.*—F.B.I., ii. p. 10 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 36 ; Fl. Indo-Chine, ii. p. 35.

Chiengmai, by stream on Doi Sootep, 900 m., *Kerr*, 1759.

Distr. India, China, Japan, Tonkin.

Buchanania latifolia, *Roxb.*—F.B.I., ii. p. 23 ; For. Fl. Burma, i. p. 307 ; Fl. Indo-Chine, ii. p. 10.

Chiengmai, Doi Sootep, 300–450 m., *Kerr*, 946, 1732 ; Lakon, 600 m., *Luang Vanpruk*, 167.

Distr. India, Burma, Yunnan, Cambodia.

Buchanania reticulata, *Hance*, var. siamica, *Hosseus*, ii. p. 408.

Wang Djao, 100 m. (ex *Hosseus*).

Buchanania sp. aff. *B. glabrae*, Wall.

Wang Djao, *Hosseus*, 144 ; Chiengmai, Doi Sootep, *Hosseus*, 283.

Probably represents a new species but the material in Herb. Kew, is too incomplete to admit of certainty. Hosseus, ii. p. 407 refers these plants definitely to *B. glabra*, Wall.

Melanorrhoea usitata, *Wall.*—F.B.I., ii. p. 25 ; For. Fl. Burma, i. p. 318; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 36 ; Fl. Indo-Chine, ii. p. 25 ; Williams, Bull. Herb. Boiss., v. (1905) p. 220.

Chiengmai, Doi Sootep, 300–900 m., *Kerr*, 933.

Distr. Throughout Indo-China, Malay Peninsula.

Lao name, Mai Hak (ex *Kerr*).

Holigarna Kurzii, *King*. *Semecarpus albescens*, Kurz, For. Fl. Burma, i. p. 313.

Chiengmai, Doi Sootep, 660–750 m., *Kerr*, 1649, 1803.

Distr. Burma.

Lao name, Kŭk Ki Mu (ex *Kerr*).

Kurz divided his species into two varieties—var. *albescens*, proper and var. *glaber*. To the former *Kerr*, 1803 is referable and to the latter *Kerr*, 1649.

Odina Wodier, *Roxb.*—F.B.I., ii. p. 29 ; For. Fl. Burma, i. p. 321 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 36 ; Fl Indo-Chine, ii. p. 34.

Between Lakon and Phre, 300 m., *Kerr*, 978 ; Pang Pooey, 420 m., *Kerr*, 1003.

Distr. India, Burma, Malaya.

Spondias mangifera, *Willd.*—F.B.I., ii. p. 42 ; For. Fl. Burma, i. p. 322 ; Fl. Indo-Chine, ii. p. 28.

Hills between Muang Prow and Chieng Dao, 600 m., *Kerr*, 1045.

Distr. India, Burma, China, Cochinchina, Malaya.

Lao name, M'Kauk (ex *Kerr*).

Connaraceae.

Connarus gibbosus, *Wall.*—F.B.I., ii. p. 52 ; For. Fl. Burma, i. p. 327 ; Williams, Bull. Herb. Boiss., iv. (1904) p. 1034.

Chiengmai, Doi Sootep, 720 m., *Kerr*, 1071.

Distr. Burma, Malay Peninsula.

Connarus stictophyllus, *Kurz*, For. Fl. Burma, i. p. 548.

Siam (ex *Kurz*).

Ellipanthus tomentosus, *Kurz*—F.B.I., ii. p. 56 ; For. Fl. Burma, i. p. 330 ; Prain, Journ. As. Soc. Beng., lix. p. 209 ; Williams, Bull. Herb. Boiss., v. (1905) p. 17.

Lakon plain, 300 m., *Kerr*, 972.

Distr. Burma.

Leguminosae.

Crotalaria acicularis, *Ham.*—F.B.I., ii. p. 68 ; Prain, Journ. As. Soc. Beng., lxvi. p. 349. *C. humifusa*, Drake, Journ. de Bot., v. p. 186 ; C. B. Clarke apud Ostenfeld, Bull. Herb. Boiss., v. (1905) p. 713 ; Williams, Bull. Herb. Boiss., v. (1905) p. 961 ; Hosseus, i. p. 484, *non* Grah.

Raheng, *Lindhard*, 27.

Distr. Madras, Bengal to Tenasserim, China, Tonkin, Java.

Crotalaria alata, *Ham.*—F.B.I., ii. p. 69 ; Prain, Journ. As. Soc. Beng., lxvi. p. 349 ; Williams, Bull. Herb. Boiss., v. (1905) p. 961 ; Hosseus, i. p. 484 et ii. p. 394 ; *non* Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 37.

Chiengmai, Doi Sootep, 450–600 m., *Kerr*, 776 ; Wang Djao, *Hosseus*, 59a ; Petchabun, *Hosseus*, 714a.

Distr. Kumaon to Khasia, Burma, China, Java.

Crotalaria albida, *Heyne*—F.B.I., ii. p. 71 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 38 ; Prain, Journ. As. Soc. Beng., lxvi. p. 351.

Chiengmai, evergreen jungle on Doi Sootep, 1050 m., *Kerr*, 876.

Distr. India, Burma, China, Malaya.

Crotalaria assamica, *Benth.*—F.B.I., ii. p. 75 ; Prain, Journ. As. Soc. Beng., lxvi. p. 352 ; Hosseus, ii. p. 394. *C. retusa*, Hosseus, i. p. 485, *non* Linn.

Chiengmai, Doi Sootep, 700–720 m., *Kerr*, 830, *Hosseus*, 302.

Distr. Assam, Upper Burma, China, Philippines.

Crotalaria bracteata, *Roxb.*—F.B.I., ii. p. 83.

Meh Ping Rapids, near Ban Kaw, 180 m., *Kerr*, 909 ; Chiengmai, in scrub jungle on Doi Sootep, 330 m., *Kerr*, 1526b.

Distr. India, Burma, Yunnan, Philippines.

Crotalaria chinensis, *Linn.*—F.B.I., ii. p. 73. *C. ferruginea*, Hosseus, i. p. 484 et ii. p. 394, the latter in part at least. "*C. acicularis*, Ham. aff. vel nov. spec."—Hosseus, ii. p. 394.

Pitsanulok, Ban Jang, 120 m., *Hosseus*, 712.

Hosseus' plant is a rather broad-leaved form.

Crotalaria elliptica, *Roxb.* *C. uncinella*, Prain, Journ. As. Soc. Beng., lxvi. p. 352, *vix* Lamk.

Sriracha, on rocky ground by the sea, *Kerr*, 2135.

Distr. China, Cochinchina, Malay Peninsula.

Crotalaria ferruginea, *Grah.*—F.B.I., ii. p. 68 ; Prain, Journ. As. Soc. Beng., lxvi. p. 349 ; Hosseus, ii. p. 394, in part.

Chiengmai, in evergreen jungle on Doi Sootep, 1500 m., *Kerr*, 1518 ; near Doi Intanon, 600 m. (ex *Hosseus*).

Distr. E. Himalayas, China, Indo-China, Ceylon.

Crotalaria Hossei, *Craib*, floribus leguminibusque *C. albidae*, Heyne, foliis *C. linifoliae*, Linn., similis, ab ambabus habitu distincta.

Rhizoma lignosum, ad 26 cm. longum. *Caules* solitarii, plerumque usque ad inflorescentiam simplices, 30–70 cm. alti, albo-strigillosi. *Folia* linearia vel lineari-oblanceolata, apice subacuta vel rotundata, mucronata, basi obtusa, 1–2 cm. longa, 2–4·5 mm. lata, brevissime petiolata, margine integro, subcoriacea, supra fere glabra, subtus indumento ut caule, costa supra subconspicua subtus prominente, nervis obscuris. *Inflorescentiae* rami 4–8, corymbosim dispositi. *Racemi* circiter 8 cm. longi, laxiusculi ; bracteae parvae, persistentes ; pedicelli 3 mm. vix attingentes. *Calyx* bilabiatus, extra adpresse flavo-hirsutus ; labium superius e lobis duobus oblongo-lanceolatis acutis 3·5 mm. longis 2·5 mm. latis, inferius e lobis tribus lanceolatis acutis 4·5 mm. longis 1 mm. latis. *Corolla* lutea (ex *Kerr*) ; vexillum reflexum, oblongum, apice emarginatum, 5·5 mm. longum, 5 mm. latum, basi squamis duabus 1 mm. longis et latis margine subintegro instructum, extra superne parce fulvo-hirsutum, ungui brevi albo-piloso-ciliato suffultum ; alae oblongae, 5 mm. longae, 2 mm. latae, glabrae, foveolatae, ungui 1 mm. longo ; carina 4·5 mm. longa, 5 mm. lata, marginibus liberis albo-piloso-ciliatis, ungui 1 mm. longo. *Stamina* generis ; tubus circiter 2 mm. longus, filamentis longioribus subaequalis. *Ovarium* subsessile, 3 mm. altum, glabrum, 8-ovulatum ; stylus 4·5 mm. longus, parce pilosus. *Legumen* oblongum, sessile, 1 cm. longum, 4 mm. latum, apice truncatum, calyce stylique basi persistentibus.—*Craib*, Kew Bull. 1911, p. 34 ; Hosseus, ii. p. 394.

Wang Djao, *Hosseus*, 59 ; Chiengmai, in eng jungle on Doi Sootep, 300–600 m., *Kerr*, 839. (Herb. Kew ! Mus. Brit. ! et Calcutta !)

Crotalaria juncea, *Linn.*—F.B.I., ii. p. 79 ; Hosseus, i. p. 484 et ii. p. 394.

Paknampo, banks of Meh Ping, 30 m. (ex *Hosseus*).

Distr. India, Burma, Assam, S. Yunnan, Hainan, Java, Mauritius.

Crotalaria medicaginea, *Lamk.*—F.B.I., ii. p. 81.

Meh Ping Rapids, Ban Kaw, 180 m., *Kerr*, 908 ; Cape Liant, *Murton*, 36.

Distr. India, China.

Crotalaria neriifolia, *Wall.*—F.B.I., ii. p. 74 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 39 ; Prain, Journ. As. Soc. Beng., lxvi. p. 352 ; Hosseus, ii. p. 395.

Chiengmai, Doi Sootep, 300–700 m., *Kerr*, 829, *Hosseus*, 287.

Distr. Burma.

Crotalaria peguana, *Benth. ex Baker*, F.B.I., ii. p. 77 ; Hosseus, ii. p. 395.

Chiengmai, Doi Sootep, 1350–1560 m., *Kerr*, 784, 1391, *Hosseus*, 209.

Distr. Upper Burma.

Closely allied to, and possibly indentical with, *C. Kurzii*, Baker.

Crotalaria quinquefolia, *Linn.*—F.B.I., ii. p. 84 ; Prain, Journ. As. Soc. Beng., lxvi. p. 354 ; Williams, Bull. Herb. Boiss., v. (1905) p. 19 ; Hosseus, i. p. 484.

Chiengmai, 300 m., *Kerr*, 1445.

Distr. India eastwards to Philippines and southwards to Australia.

Crotalaria sessiliflora, *Linn.*—F.B.I., ii. p. 73 ; Prain, Journ. As. Soc. Beng., lxvi. p. 351 ; Hosseus, i. p. 485 et ii. p. 395.

Chiengmai, in mixed jungle on Doi Sootep, 300–540 m., *Kerr*, 898 ; Wang Djao, *Hosseus*, 112 ; Pitsanulok, Ban Jang (ex *Hosseus*).

Distr. Himalaya, China, Burma, Philippines.

Crotalaria striata, *DC.*—F.B.I., ii. p. 84. *C. Saltiana*, Prain, Journ. As. Soc. Beng., lxvi. p. 353, *non* Andr. *C. siamica*, Williams, Bull. Herb. Boiss., v. (1905) p. 20 ; Hosseus, i. p. 485.

Bangkok, *Zimmermann*, 135.

Distr. Tropics.

Crotalaria verrucosa, *Linn.*—F.B.I., ii. p. 77.

Meh Ping Rapids, Ban Kaw, 180 m., *Kerr*, 910 ; Sriracha, in evergreen jungle, 15 m., *Kerr*, 2108.

Distr. Tropics.

Priotropis cytisoides, *Wight et Arn.*—F.B.I., ii. p. 65.

Chiengmai, in mixed jungle on Doi Sootep, 420 m., *Kerr*, 1447.

Distr. Sikkim, Assam, Burma, Yunnan.

Indigofera Dosua, *Ham.*, var. **tomentosa**, Baker, F.B.I., ii. p. 102 ; Prain, Journ. As. Soc. Beng., lxvi. p. 357.

Chiengmai, in open jungle on Doi Sootep, 1590 m., *Kerr*, 1381.

Distr. (of var.) Himalayas, Yunnan, Burma, Khasia.

Indigofera endecaphylla, *Jacq.*—F.B.I., ii. p. 98 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 39.

Anhin, *Schomburgk*, 258.

Distr. India, Burma, China, Africa.

Indigofera laxiflora, *Craib*, ab *I. subulata*, Vahl, foliolis majoribus numerosioribus, floribus fere duplo majoribus, leguminibus haud reflexis, ab *I. cylindracea*, Wall., foliolis majoribus, leguminibus longioribus, ab *I. leptostachya*, DC., foliolorum membranaceorum forma recedit.

Fruticulus flaccidus, vix 1 m. altus (ex *Kerr*) ; caules primo parce adpresse brunneo-hirsuti, mox glabri, stramineo-virides nisi inferne rubrescentes. *Folia* imparipinnata, ad 12 cm. longa, petiolo circiter 1·5 cm. longo suffulta, rhachi supra canaliculata ; foliola opposita, utrinque 4–6, plerumque oblongo-obovata, apice rotundata, mucronata, basi cuneata vel late cuneata, ad 4 cm. longa et 2·3 cm. lata, terminale a lateralibus paullo ultra 1 cm. distans, membranacea, utrinque pilis medio-fixis brevibus paucis albis nisi subtus interdum brunneis instructa, petiolulis circiter 1·5 mm. longis suffulta ; stipulae deciduae circiter 2 mm. longae ; stipellae ad 1 mm. longae. *Racemi* axillares, ad 15 cm. longi, pedunculo communi ad 5 cm. longo

suffulti. *Bracteae* sub anthesin deciduae, 1·5 mm. longae. *Pedicelli* ad 5 mm. longi, ut rhachi pilis paucis adpressis brunneis instructi. *Calyx* extra parce adpresse brunneo-pubescens; tubus 1·75 mm. longus; lobi lanceolati, acuti, ad 1 mm. longi. *Corolla* purpurea (ex *Kerr*); vexillum subellipticum, 8 mm. longum, 6 mm. latum, ungui 1 mm. longo, extra breviter adpresse albo-pubescens; alae angustae, vexillo aequilongae; carina alas paullo superans. *Ovarium* circiter 8 mm. longum et 0·3 mm. latum, glabrum, multiovulatum. *Legumen* ad 4·3 cm. longum, 1·5 mm. latum, acuminatum, suturis incrassatum, glabrum.—*Craib*, Kew Bull. 1912, p. 148.

Chiengmai, in open grassy jungle on Doi Sootep, 1500 m., *Kerr*, 1388, 1978.

Indigofera hirsuta, *Linn.*—F.B.I., ii. p. 98; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 39; Prain, Journ. As. Soc. Beng., lxvi. p. 356.

Sriracha, on open, rocky, grassy slope, 15 m., *Kerr*, 2138.

Distr. Tropics.

Indigofera linifolia, *Retz.*—F.B.I., ii. p. 92; Prain, Journ. As. Soc. Beng., lxvi. p. 355.

Cape Liant, *Murton*, 35.

Distr. Afghanistan, India, Burma, China, Malaya, Australia, Africa.

Indigofera pulchella, *Roxb.*—F.B.I., ii. p. 101; For. Fl. Burma, i. p. 361; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 39; Hosseus, ii. p. 398.

Ban Meh Wang, 300 m., *Hosseus*, 362, *Kerr*, 1006; Chiengmai, in deciduous jungle on Doi Sootep, 330 m., *Kerr*, 1665.

Distr. N. India, Burma, China.

Indigofera siamensis, *Hosseus*, Fedde Repert. Nov. Sp., iv. (1907) p. 291, i. p. 485 et ii. p. 398.

Wang Djao, 100 m., *Hosseus*, 120.

Indigofera sootepensis, *Craib*, affinis *I. galegoidi*, DC., a qua ramorum foliorumque novorum indumento brunneo haud albo, foliolis numerosioribus, bracteis stipulisque longioribus, legumine fere dimidio breviore turgidiore differt.

Frutex ad 2·5 m. altus (ex *Kerr*). *Rami* flexuosi, subangulati, juventute dense brunneo-pubescentes, mox parce brevissime adpresse strigillosi, cortice brunneo. *Folia* 15–18 cm. longa, petiolo ad 1 cm. longo, rhachi supra canaliculata; stipulae e basi fere 1 mm. lata longe attenuatae, ad 12 mm. longae; foliola 37–41, opposita nisi infima subopposita, anguste oblonga vel terminalia obovata, apice rotundata, mucronata, basi rotundata vel terminalia cuneata, 1·5–3 cm. longa, 6–8 mm. lata, tenuiter chartacea, utrinque parce pubescentia, margine integro, nervo primario utrinque conspicuo, nervis lateralibus obscuris, supra fusca, subtus pallide viridia; stipellae minutae; petioluli circiter 2 mm. longi. *Racemi* axillares, usque ad apices ramorum, multiflori, ad 9 cm. longi, pedunculo 1 cm. longo. *Flores* breviter pedicellati, bracteis deciduis alabastra superantibus. *Calyx* fere 2 mm. longus, dentibus parvis, dense strigillosus. *Corolla* longe exserta, circiter 1 cm. longa, vexillo

carinaque extra dense brunneo-strigillosis. *Legumen* teres, ad 4·5 cm. longum, 5 mm. diametro, basi attenuatum, parce puberulum.—*Craib*, Kew Bull. 1911, p. 35.

Chiengmai, in deciduous jungle on Doi Sootep, 480-900 m., *Kerr*, 684.

Indigofera squalida, *Prain*, Journ. As. Soc. Beng., lxvi. p. 355.

Chiengmai, in deciduous jungle on Doi Sootep, 480 m., *Kerr*, 658.

Distr. Upper Burma.

Indigofera tinctoria, *Linn.*—F.B.I., ii. p. 99; Prain, Journ. As. Soc. Beng., lxvi. p. 356; Hosseus, i. p. 486.

Chiengmai, Doi Sootep, 1500 m. (ex *Hosseus*).

Distr. Tropics—often cultivated.

Tephrosia (§ **Brissonia**) **Kerrii**, *Drummond et Craib*, *T. vestitae*, Vog., similis, sed floribus leguminibusque multo majoribus, necnon leguminis indumento valde fortiore facile distinguenda.

Suffruticulus caulibus circa bimetralibus erectis rigidis superne fistulosis sub supremam inflorescentiam 2–5 mm. diametro angulatis et leniter sulcatis pilis satis robustis ascendentibus laxe adpressis demum fulvescentibus vestitis. *Folia* imparipinnata, foliolo terminali lateralibus aliquantulo majore; foliola utrinque 5–8, oblongo-lanceolata, breviter sed distincte mucronata, usque ad 7·75 cm. longa, paullo ultra 17 mm. lata, supra olivacea, glabrata, minute sed distincte reticulata, subtus pilis subargenteis satis longis mollioribus adpressis dense vestita, costa necnon margine pilis mox fulvescentibus instructa, nervis primariis circa 3 mm. inter se distantibus leniter arcuatis, secundariis secus primarios parallelis multo obscurioribus; petioluli vix 2 mm. longi, basi pulvinati, inaequaliter hirsuti. *Inflorescentiae* juveniles strobiliformes, circa 20 mm. longae, 10 mm. diametro, denique sub anthesin ad 10 cm. longae; bracteae anguste lanceolatae, argute cuspidatae, 5 mm. longae, 2 mm. (ciliis exclusis) latae, cuspi lineari-subulata circa 5 mm. longa, dorso villosissimae, ad marginem eleganter ciliatae, interne venis paucis satis obviis et pilis candidis adpressis sparse ornatae, caducae; flores rhachidis obscure flexuosi ad nodos singuli insidentes, pedicellis valde villosis post anthesin 6 mm. longis suffulti. *Calyx* extra pilis subasperis 1 mm. longis fulvescentibus laxe adpressis obsitus; tubus late poculiformis, 4 mm. diametro; lobi anguste deltoidei, anterior prope 5 mm., ceteri vix 3 mm. longi, omnes basi circa 2 mm. lati, infra fusci et minute puberuli. *Vexillum* ovato-cordatum, apice breviter emarginatum, basi cuneatum, in stipitem angustum imo saccatum infra involutum, venis flabellatim dispositis, dorso convexe carinatum, pilis robustis longis fulvis subadpressis vestitum, intra omnino glabratum; alae carinam vix superantes, ei forma similes sed apice obscurissime falcatae, venis satis conspicuis inter se innectis pulchre notatae, margine superiore supra unguem manifeste gibbosae; carina margine anteriore 10 mm. inferiore vix 19 mm. longa, apicem versus obtuse et brevissime rostrata, leniter falcata. *Legumen* 10 cm. longum, 7·5 mm. latum, pilis longis fulvescentibus mollibus prorsus directis vestitum, parte inferiore plus minusve arcuatum, sub apicem margine anteriore in rostrum validum 2·5 mm.

longum curvatum abeunte unde exoritur stylus subpersistens, abrupte geniculatus, inferne glaber, superne unilateraliter insigne barbatus.—*Drummond et Craib*, Kew Bull. 1912, p. 149.

Chiengmai, in evergreen jungle on Doi Sootep, 960 m., *Kerr*, 1382.

Distr. S. Yunnan.

Tephrosia (§ Brissonia) repentina, *Drummond et Craib*, e grege *T. tinctoriae*, Pers (sensu stricto), ab illa necnon a *T. coccinea*, Wall., propter formam et indumentum foliolorum, a *T. Heyneana*, Wall., propter multo majores flores et legumina facile distinguenda ; a *T. senticosa*, Pers. (vera), cui omnium maxime affinis, foliolis majoribus, oblongo-lanceolatis vel oblongo-obovatis nec oblongo-cuneatis apice obtusis vel acutis nunquam retusis supra obscure nec conspicue striatis, legumine fere duplo longiore valde pubescente aliisque notis bene dignoscitur.

Suffruticulus 30–70 cm. altus, caule circiter 2 mm. diametro obscurius angulato irregulariter sulcato pilis subargenteis mox fulvescentibus subadpressis munito. *Folia* imparipinnata, foliolo terminali lateralibus aliquantulo majore, rhachi adpresse pilosa basi inconspicue pulvinata 3·5–7·5 cm. longa ; foliola utrinque 3–5, oblongo-lanceolata vel oblongo-obovata, apice obtusa vel acuta, cujusque jugi superne gradatim majora, infima 4·5 cm. longa, 7 mm. lata, suprema ad 4·5 cm. longa et vix 2 cm. lata, supra cinereo-olivacea, ad venas nebulose fusco-maculata, minute reticulata, glabra nisi nervis lateralibus villos paucos longos candidos sparsissime praebentibus, subtus pilis subargenteis leniter adpressis densius vestita, ad costam prominentem pilis longioribus subpatentibus ad marginem subaureis prorsus directis ornata, nervis omnibus obscuris lateralibus inter se circiter 3·5 mm. distantibus, petiolulis pilis ascendentibus pallide aureis hirsutis suffulta. *Flores* 1–4, terminales vel axillares ; bracteae sericeo-canescentes ; bracteolae obscuriores, caducae ; pedicelli (maturante legumine) vix 4 mm. longi. *Calycis* tubus subpoculiformis, circiter 3 mm. diametro, extra pilis sericeo-canescentibus laxe adpressis vestitus, intra glaber ; lobi angustissime deltoidei, anterior circa 4 mm. longus et 4 mm. latus, ceteri circa 2 mm. longi et 1 mm. lati, extra pilis demum subaureis obsiti. *Vexillum* brunneum (ex *Kerr*), circiter 19 mm. longum, medio argute sulcato-lineatum, margine integro, dorso pilis longis aureo-fulvis quasi velutinis dense vestitum ; alae albae (ex *Kerr*), carina manifeste breviores, dimidiate oblongo-cuneatae, obscure falcatae, supra unguem gibbosae ; carina alba (ex *Kerr*), circiter 18 mm. longa, obtuse rostrata, inferiore margine oblique rotundato, supra mediam longitudinem 6·5 mm. lata. *Stylus* vix geniculatus, alte arcuatus, pilis ascendentibus subaureis aeque munitus. *Legumen* (vix maturum) 9 cm. longum, vix 6 mm. latum, inconspicue falcatum, sub apicem margine anteriore in rostrum vix 3 mm. longum curvatim abeunte, pilis mollibus longis subadpressis satis sordide fulvescentibus dense vestitum.—*Drummond et Craib*, Kew Bull. 1912, p. 150.

Sriracha, Nawng Kaw, on clearing in evergreen jungle, 30 m., *Kerr*, 2053.

Tephrosia siamensis, *Drummond* apud Hosseus, ii. p. 400.

Pitsanulok, Nakontai, 100 m. (ex *Drummond*).

Tephrosia vestita, *Hosseus*, i. p. 486 et ii. p. 401, *an* Vog.?
Kau Phra Dang, 300 m. (ex *Hosseus*).

Tephrosia Wallichii, *Graham*. *T. purpurea*, Craib, Kew Bull. 1911 p. 36, *non* Pers.
Chiengmai, on waste ground, 300 m., *Kerr*, 710 ; Anhin, *Schomburgk*, 253.
Distr. S. India, Indo-China.

Tephrosia purpurea, Hosseus, i. p. 486 et ii. p. 400, *non* Pers.
Banks of Meh Ping, Ban Salu, *Hosseus*, 376, 377.
The plants quoted do not belong to true *T. purpurea* but may be referable to *T. confertiflora*.

Millettia auriculata, *Baker*, var. **extensa**, *Benth.*—Prain, Journ. As. Soc. Beng., lxvi. p. 363. *M. extensa*, Benth.—F.B.I., ii. p. 109 ; For. Fl. Burma, i. p. 352.
Chiengmai, Doi Sootep, 450–750 m., *Kerr*, 595, 1724.
Distr. (of var.) Burma.
Lao name, Keua Kwau (ex *Kerr*).

Millettia Brandisiana, *Kurz*—F.B.I., ii. p. 108 ; For. Fl. Burma, i. p. 355 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 40.
Near Ban Meh Tah, 300 m., *Kerr*, 985 ; Meh Ping, Ban Na, *Kerr*, 2029 ; Phre, 120–180 m., *Luang Vanpruk*, 147.
Distr. Burma.
The material of *Hosseus*, 140, is rather scanty in Herb. Kew but it is evidently allied to this species.

Millettia latifolia, *Dunn*.
Chiengmai, in deciduous jungle on Doi Sootep, 360 m., *Kerr*, 1733.

Millettia ovalifolia, *Kurz*—F.B.I., ii. p. 107 ; For. Fl. Burma, i. p. 356.
Siam, *Teysmann*, 6026.
Distr. Burma.

Millettia pachycarpa, *Benth.*—F.B.I., ii. p. 106 ; For. Fl. Burma, i. p. 353 ; Prain, Journ. As. Soc. Beng., lxvi. p. 361.
Chiengmai, Doi Sootep, 1560 m., *Kerr*, 1770.
Distr. Sikkim, Assam, Upper Burma, S. China.

Millettia pubinervis, *Kurz*—F.B.I., ii. p. 106 ; For. Fl. Burma, i. p. 357 ; Prain, Journ. As. Soc. Beng., lxvi. p. 360.
Chiengmai, in mixed jungle on Doi Sootep, 330 m., *Kerr*, 1452.
Distr. Burma.

Millettia racemosa, *Benth.*—F.B.I., ii. p. 105 ; Prain, Journ. As. Soc. Beng., lxvi. p. 359. *M. leiogyna*, Kurz—For. Fl. Burma, i. p. 351 ; F.B.I., ii. p. 109 ; Prain, l.c., p. 363.
Phre, 180–300 m., common in teak area, *Luang Vanpruk*, 188.
Distr. India, Burma, Philippines.
Lao name, Du Kua (ex *Luang Vanpruk*).

Adinobotrys filipes, *Dunn*, Kew Bull. 1911, p. 195.
Chiengmai, in evergreen jungle on Doi Sootep, 720 m., *Kerr*, 1730.
Distr. Yunnan.

Sesbania aculeata, *Pers.*, var. elatior, *Prain*, Journ. As. Soc. Beng., lxvi. p. 369. *S. aculeata*, F.B.I., ii. p. 114, in part ; Craib, Kew Bull. 1911, p. 36, *excl.* references.
Chiengmai, in marshy ground, 300 m., *Kerr*, 811.
Distr. Tropics.

Sesbania aegyptiaca, *Pers.*, var. picta, *Prain*, Journ. As. Soc. Beng., lxvi. p. 367. *S. aegyptiaca*, F.B.I., ii. p. 114, in part ; Hosseus, i. p. 486.
Bangkok, *Zimmermann*, 85.
Widely cultivated in Tropical Asia.

Sesbania grandiflora, *Pers.*—F.B.I., ii. p. 115 ; For. Fl. Burma, i. p. 362 ; Prain, Journ. As. Soc. Beng., lxvi. p. 370 ; Williams, Bull. Herb. Boiss., v. (1905) p. 20 ; Hosseus, i. p. 486.
Chiengmai, near villages, 300 m., *Kerr*, 964.
Distr. India, Malaya, Australia, Mascerene Is.
Lao name, Dauk Kaa (ex *Kerr*).

Sesbania paludosa, *Prain*—Prain, Journ. As. Soc. Beng., lxvi. p. 367. *S. aculeata*, var. *paludosa*, Baker, F.B.I., ii. p. 115, in part. *S. aculeata*, Williams, Bull. Herb. Boiss., v. (1905) p. 20, at least in part et Hosseus, i. p. 486, *non* Pers.
Along canals near Bangkok, *Schomburgk*, 287.
Distr. Bengal, Burma, Formosa, Malaya (ex *Prain*).

Ormocarpum glabrum, *Teysm. et Binn.* ?—Prain, Journ. As. Soc. Beng., lxvi. p. 379.
Bangkok, *Schomburgk*, 294.
Distr. Malay Archipelago [Andamans, ex *Prain*].

Ormocarpum sennoides, *DC.*—F.B.I., ii. p. 152 ; For. Fl. Burma, i. p. 390.
Kanburi (ex *For. Fl. Burma*).
Distr. Tropical Asia and Africa.

Aeschynomene aspera, *Linn.*—F.B.I., ii. p. 152.
Chiengmai, 300 m., *Kerr*, 1484.
Distr. S.E. Asia, Tropical Africa.

Aeschynomene indica, *Linn.*—F.B.I., ii. p. 151.
Chiengmai, in marshy ground, 300 m., *Kerr*, 768.
Distr. Tropics.

Smithia ciliata, *Royle*—F.B.I., ii. p. 150 ; Prain, Journ. As. Soc. Beng., lxvi. p. 378 ; Hosseus, i. p. 487 et ii. p. 400.
Chiengmai, in open grassy jungle on Doi Sootep, 1350–1500 m., *Kerr*, 1511.
Distr. Himalayas, Parasnath, Yunnan, Assam, Philippines, Formosa.

Desmodium auricomum, *Grah.*—F.B.I., ii. p. 172 ; Williams, Bull. Herb. Boiss., v. (1905) p. 961 ; Hosseus, i. p. 487.
Raheng, *Lindhard*, 26.
Distr. Martaban, Tenasserim.

Desmodium birmannicum, *Watt ex Prain*, Journ. As. Soc. Beng., lxvi. p. 401. *D. umbellatum*, Hosseus, i. p. 489, at least in part et ii. p. 396, in its entirety.

Chiengmai, in evergreen jungle on Doi Sootep, 420 m., *Kerr*, 1406 ; Ban Phra Dang, 120 m., *Hosseus*, 161.

Distr. Burma.

The plant collected by *Schmidt* is probably correctly referred to *D. umbellatum* which, as already pointed out by Prain (Journ. As. Soc. Beng., lxvi. p. 387), is a purely littoral species, but the plant collected at Wang Djao by *Lindhard* has almost certainly been wrongly determined as *D. umbellatum*.

Desmodium capitatum, *DC.*—F.B.I., ii. p. 170 ; Prain, Journ. As. Soc. Beng., lxvi. p. 400. *D. polycarpum*, Williams, Bull. Herb. Boiss., v. (1905) p. 20, in part, *non* DC.

Bangkok, *Zimmermann*, 57.

Distr. Ceylon, Burma, Malaya, Philippines.

Desmodium cephalotes, *Wall.*, var. typica, *Prain*, Journ. As. Soc. Beng., lxvi. p. 389. *D. cephalotes*, Wall.—F.B.I., ii. p. 161, in part

Phre, 156–240 m., *Luang Vanpruk*, 117.

Distr. India (rare), Burma, China, Tonkin, Java.

Desmodium cephalotes, *Wall.*, var. congesta, *Prain*, Journ. As. Soc. Beng., lxvi. p. 389. *D. cephalotes*, Baker, F.B.I., ii. p. 161, in part.

Meh Ping, Doi Noi, in scrub jungle, 300 m., *Kerr*, 2008.

Distr. India, Burma, Java.

Lao name, Dawk Kem (ex *Kerr*).

Hosseus, i. p. 487 and ii. p. 395 records *D. cephalotes* from Wang Djao.

Desmodium cephalotoides, *Craib*, *D. cephaloti*, Wall., facie similis sed floribus magnis facile distinguenda.

Suffruticulus circiter 6 dm. altus (ex *Kerr*) ; caules trigoni, faciebus sericei, angulis barbati. *Folia* trifoliolata, petiolo 1·5–2·5 cm. longo trigono indumento ut caulibus suffulta ; stipulae deciduae, lineari-lanceolatae, acutae, circiter 1 cm. longae, costatae, sicco brunneae, dorso costa pilosae vel fere glabrae, ciliatae ; foliola lanceolata, apice acuta, basi cuneata vel subrotundata, lateralia 3·5–8 cm. longa, 1·5–2·6 cm. lata, terminale a lateralibus 1–2 cm. distans, 5–11 cm. longum, 1·5–4 cm. latum, chartacea, supra costa pilosula excepta glabra, subtus sericea, nervis lateralibus utrinque ad 10 supra conspicuis subtus prominentibus, nervis transversis tenuibus supra subconspicuis ; stipellae ad 8 mm. longae. *Inflorescentia* axillaris, capituliformis ; bracteae vix 3 mm. longae, 1·5 mm. latae, bracteolis similes ; pedicelli 4 mm. longi, sericei ; bracteolae 2, oblongae, acutiusculae, 4 mm. longae, 1·75 mm. latae, costatae, dorso medio apicemque versus barbatae, ciliatae. *Calycis* tubus 2·5 mm. longus, extra parcissime adpresse pubescens, intra glaber, lobi 2·5–4·5 mm. longi, ad 2 mm. lati, acuti, extra subsericei, intra pilosuli. *Corolla* alba (ex *Kerr*), glabra, 1·3 cm. longa. *Ovarium* vix 3 mm. altum, suturis pubescens.—*Craib*, Kew Bull. 1912, p. 150.

Meh Ping Rapids, Ban Kaw, in mixed jungle, *Kerr*, 2022.

Desmodium elegans, *Benth.*, non Drake, Journ. de Bot., v. p. 189. *D. vestitum*, Drake, l.c. p. 192, *non* Benth.

Sriracha, in scrub jungle, 15 m., *Kerr*, 2139.

Distr. Hongkong, Hainan, Tonkin.

Desmodium flexuosum, *Wall.*—F.B.I., ii. p. 168.
Chiengmai, in mixed jungle on Doi Sootep, 330–360 m., *Kerr*, 1480, 1480b.
Distr. Burma.

Desmodium gangeticum, *DC.*—F.B.I., ii. p. 168 ; Prain, Journ. As. Soc. Beng., lxvi. p. 399 ; Williams, Bull. Herb. Boiss., v. (1905) p. 961 ; Hosseus, i. p. 487.
Chiengmai, 300 m., *Kerr*, 1477—" a garden weed " ; Wang Djao (ex *Williams* et *Hosseus*).
Distr. Trop. Asia, Africa, W. Indies.

Desmodium Griffithianum, *Benth.*—F.B.I., ii. p. 171 ; Prain, Journ. As. Soc. Beng., lxvi. p. 400 ; Hosseus, ii. p. 395. *D. barbatum*, Hosseus, i. p. 487, *non* Benth.
Chiengmai, Doi Sootep, 800 m., *Hosseus*, 253.
Distr. Khasia, Burma.

Desmodium gyrans, *DC.*—F.B.I., ii. p. 174 ; Hosseus, i. p. 488 et ii. p. 395.
Chiengmai, in eng jungle on Doi Sootep, 300–540 m., *Kerr*, 816 ; Ban Phra Dang, 120 m., *Hosseus*, 156.
Distr. India, Burma, China, Malay Archipelago, Philippines.

Desmodium gyroides, *DC.*—F.B.I., ii. p. 175 ; For. Fl. Burma, i. p. 388 ; Prain, Journ. As. Soc. Beng., lxvi. p. 401.
Chiengmai, Doi Sootep, 720 m., *Kerr*, 745.
Distr. India, throughout Indo-China, Malaya.

Desmodium insigne, *Prain*, Journ. As. Soc. Beng., lxvi. p. 398 ; Hosseus, ii. p. 396 (as *forma*).
Wang Djao, 100 m., *Hosseus*, 61 ; Chiengmai, in mixed jungle on Doi Sootep, 450 m., *Kerr*, 1453.
Distr. Tenasserim.

Desmodium Kurzii, *Craib*, Kew Bull. 1911, p. 37, nom. nov. *D. grande*, Kurz—F.B.I., ii. p. 162 ; For. Fl. Burma, i. p. 384 ; Prain, Journ. As. Soc. Beng., lxvi. p. 389, *non* E. Mey.
Chiengmai, in deciduous jungle on Doi Sootep, 300 m., *Kerr*, 766.
Distr. Burma.

Desmodium laxiflorum, *DC.*—F.B.I., ii. p. 164 ; Hosseus, i. p. 488 et ii. p. 396.
Wang Djao, Koh Yai, 110 m., *Hosseus*, 95 ; Chiengmai, Doi Sootep, 420 m., *Kerr*, 1456.
Distr. Himalayas, Assam, Burma, China, Malay Archipelago, Philippines.

Desmodium longipes, *Craib*, Kew Bull. 1910, p. 20. *D. elegans*, Drake, Journ. de Bot., v. p. 189, *non* Benth.
Chiengmai, in mixed jungle on Doi Sootep, 300 m., *Kerr*, 715.
Distr. Tonkin, Cambodia.

Desmodium oblatum, *Baker*—F.B.I., ii. p. 166 ; Prain, Journ. As. Soc. Beng., lxvi. p. 394 ; Hosseus, i. p. 488 et ii. p. 396.
Chiengmai, Doi Sootep, 800–1020 m., *Kerr*, 873, *Hosseus*, 234.
Distr. Burma.

Desmodium oblongum, *Wall.*—F.B.I., ii. p. 166 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 43 ; Prain, Journ. As. Soc. Beng., lxvi. p. 394 ; Hosseus, ii. p. 396.

Chiengmai, Doi Sootep, 510–1500 m., *Kerr*, 877, 894, *Hosseus*, 258 ; Kau Phra Dang, 320 m., *Hosseus*, 154.

Distr. Burma, Manipur, Yunnan.

Desmodium polycarpum, *DC.*—F.B.I., ii. p. 171 ; Prain, Journ. As. Soc. Beng., lxvi. p. 400 ; Williams, Bull. Herb. Boiss., v. (1905) p. 20, in part ; Hosseus, i. p. 488 et ii. p. 396. *D. heterocarpum*, Kurz, For. Fl. Burma, i. p. 389.

Chiengmai, in deciduous jungle on Doi Sootep, 720 m., *Kerr*, 729 ; Wang Djao, 100 m., *Hosseus*, 128 ; Bangkok (ex *Williams* et *Hosseus*) ; Pitsanulok (ex *Hosseus*).

Distr. India, China, throughout Indo-China, Malaya, Africa.

Desmodium polycarpum, *DC.*, var. **angustfolia**, *Benth. MSS.*

Chiengmai, in eng jungle on Doi Sootep, 600 m., *Kerr*, 772.

Distr. Tavoy (*Wall. Cat.* 5729 K in Herb. Kew).

Desmodium pulchellum, *Benth.*—F.B.I., ii. p. 162 ; For. Fl. Burma, i. p. 383 ; Hosseus, i. p. 489 et ii. p. 396.

Wang Djao, 100 m., *Hosseus*, 66.

Distr. E. Asia.

Desmodium reniforme, *DC.*—F.B.I., ii. p. 173 ; Prain, Journ. As. Soc. Beng., lxvi. p. 401.

Chiengmai, in mixed jungle on Doi Sootep, 330 m., *Kerr*, 1463.

Distr. N.W. Himalayas, Burma, Yunnan, Formosa.

Desmodium rugosum, *Prain*, Journ. As. Soc. Beng., lxvi. pp. 137 et 388 ; Williams, Bull. Herb. Boiss., v. (1905) p. 20.

Meh Ping Rapids, Ok Ma, in mixed jungle, 135 m., *Kerr*, 2189.

Distr. Lower Burma [Kedah, ex *Prain*].

Desmodium sambuense, *DC.*—Prain, Journ. As. Soc. Beng., lxvi. p. 394. *D. floribundum*, Don—F.B.I., ii. p. 167 ; For. Fl. Burma, i. p. 387 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 43.

Chiengmai, in open grassy jungle on Doi Sootep, 1200–1560 m., *Kerr*, 782, 782a, 1385.

Distr. Punjab to Khasia, Upper Burma, China.

Desmodium trichocaulon, *DC.* *D. polycarpum*, DC., var. *trichocaulon*, Baker, F.B.I., ii. p. 172.

Chiengmai, in open grassy jungle on Doi Sootep, 1350 m., *Kerr*, 1308.

Distr. E. Himalayas, Khasia, Burma.

Desmodium triflorum, *DC.*—F.B.I., ii. p. 173 ; Hosseus, i. p. 489 et ii. p. 396.

Chiengmai, in a clearing on Doi Sootep, 720 m., *Kerr*, 794 ; Wang Djao, 100 m. (ex *Hosseus*).

Distr. Tropics.

Desmodium triquetrum, *DC.*—F.B.I., ii. p. 163, in part ; For. Fl. Burma, i. p. 384 ; Prain, Journ. As. Soc. Beng., lxvi. p. 390 ; Williams, Bull. Herb. Boiss., v. (1905) p. 20 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 42 ; Hosseus, i. p. 489 et ii. p. 396.

Chiengmai, Doi Sootep, 660 m., *Kerr*, 1496 ; Pitsanulok (ex *Hosseus*).

Distr. India, Indo-China, Malaya.

Uraria acuminata, *Kurz*—Prain, Journ. As. Soc. Beng., lxvi. p. 379.

Chiengmai, Doi Sootep, 600 m., *Kerr*, 1367.

Distr. Burma (Tonkyeghat).

Uraria lagopoides, *DC.*—F.B.I., ii. p. 156 ; Prain, Journ. As. Soc. Beng., lxvi. p. 380.

Chiengmai, Doi Sootep, 390 m., *Kerr*, 650.

Distr. Bengal and Assam to S. China, Tonkin, Malaya.

Uraria latifolia, *Prain*, Journ. As. Soc. Beng., lxvi. p. 383.

Chiengmai, deciduous jungle on Doi Sootep, 420 m., *Kerr*, 1275.

Distr. Upper Burma.

Uraria macrostachya, *Wall.*—Prain, Journ. As. Soc. Beng., lxvi. p. 380.

Chiengmai, scrub jungle on Doi Sootep, 330 m., *Kerr*, 1330.

Distr. Burma, China.

Uraria picta, *Desv.*—F.B.I., ii. p. 155.

Meh Ping, Muang Hawt, 240 m., in open deciduous jungle, *Kerr*, 2013.

Distr. Trop. Asia, Australia and Africa.

Uraria repanda, *Wall.*—F.B.I., ii. p. 156 ; Hosseus, i. p. 490 et ii. p. 401.

Wang Djao, 100 m. (ex *Hosseus*).

Distr. E. Bengal, Burma.

I have not seen this plant and so have given Hosseus' determination. The correct name for *U. repanda* is *U. alopecuroides*, Wight (Prain, Journ. As. Soc. Beng., lxvi. p. 381).

Uraria rotundata, *Craib*, ab *U. lagopoide*, DC., cui valde affinis, foliorum nervis pagina utraque conspicuis, bracteis longioribus angustioribus haud vel vix acuminatis, leguminibus pallidis recedit.

Caules basi lignosi, repentes, graciles, primo breviter pubescentes praetereaque pilis paucis patentibus longis albis instructi, mox puberuli. *Folia* simplicia, ambitu plus minusve rotundata, apice rotundata, mucronata, basi leviter cordata, 1·1–3·4 cm. longa, 1·1–2·8 cm. lata, rigide chartacea, supra pilis paucis brevibus scabridula, subtus nervis puberula et pilis paucis longioribus deciduis instructa, ciliata, nervis lateralibus utrinque circiter 7 cum nervis transversis supra prominulis subtus prominentibus ; petioli graciles, 1·3 2·7 cm. longi, puberuli ; stipulae angustae, acutae, circiter 7 mm. longae ; stipellae 2 mm. longae. *Racemi* cylindrici, 4–5 cm. longi et circiter 1 cm. diametro ; bracteae late lanceolatae, apice attenuatae, acutae, circiter 1 cm. longae et 3 mm. latae, ciliatae, extra puberulae praetereaque pilis paucis longis rigidis instructae, intra glabrae, costatae ; flores gemini, pedicellis 4 mm. longis pilis longis divaricatis paucisque brevioribus instructis suffulti. *Calycis* segmenta ad 6 mm. longa, corollam purpuream superantia, pilis rigidis divaricatis tecta. *Legumen* pallidum, puberulum.—*Craib*, Kew Bull. 1912, p. 151.

Sriracha, creeping on rocky ground by the sea, *Kerr*, 2136.

Murtonia, *Craib*, inter *Hedysareas* et *Phaseoleas* ponendum; ad illas fructu ad has habitu accedit.

Calycis lobi duo posteriores in unum emarginulatum connati, lateralibus infimoque subaequales. *Vexillum* amplum, subrotundatum, basi cuneatum; alae oblongae, basi sagittatae, unguiculatae; carina obtusa, unguiculata. *Stamen* vexillare liberum, ceteris connatis. *Ovarium* lineare, multi-ovulatum, stylo glabro, stigmate parvo terminali capitato. *Legumen* exsertum, articulatum, seminibus plerumque 7–9, stipitatum vel ob semina infima abortiva longe stipitatum.—*Suffrutex* scandens, partibus fere omnibus (floribus exceptis) pilis albidis brevibus uncinatis rigidiusculis instructus. *Folia* imparipinnata, stipulis conspicuis rigidis; foliola opposita, penninervia, stipellata. *Inflorescentia* axillaris, ample simpliciter paniculata.

Species *unica*.

Murtonia Kerrii, *Craib*.

Suffrutex scandens; ramuli primo pilis uncinatis albidis brevibus rigidiusculis instructi, mox glabri vel fere glabri, virides, interdum brunneo-maculati, teretes. *Folia* imparipinnata, petiolo 3–7 cm. longo pilis iis ramulorum similibus instructo suffulta; stipulae ovatae, apice acuminatae, pungentes, basi auriculatae, circiter 1·7 cm. longae et 9 mm. latae, saepissime reflexae, virides, striatae, dorso breviter hirsutulae; foliola 5, terminali a lateralibus 1·5–2·5 cm. distante, lateralibus oppositis paribus inter se 3–4·5 cm. distantibus, lanceolata vel late lanceolata, apice acuminata, acuta, basi rotundata, subcordata, 5·5–16 cm. longa, 1·3–4·4 cm. lata, rigide chartacea vel fere subcoriacea, nervis lateralibus utrinque 16–18 obliquis intra marginem anastomosantibus supra conspicuis vel fere prominulis subtus prominentibus, nervis transversis subtus prominentibus, supra matura glabra nisi costa basin versus pilis paucis uncinatis instructa, subtus pallidiora, costa nervisque pilis parvis uncinatis instructa, margine cartilagineo crispato; rhachis pilis iis ramulorum similibus instructa; petioluli breves, validiusculi, albo-hirsuti, supra canaliculati; stipellae rigidae, lineari-lanceolatae, pungentes, ad 1 cm. longae, 1·5 mm. latae, subglabrae, nervatae. *Inflorescentia* axillaris, simpliciter paniculata, pedunculo 6–15 cm. longo inferne indistincte angulato angulis praecipue pilis uncinatis albidis instructo suffulta; flores solitarii vel gemini; bracteae lanceolatae vel ovato-lanceolatae, acutae, 2·5 mm. longae, 0·75 mm. latae, rigidiusculae, costatae, ciliatae; pedicelli teretes, 1·5 mm. longi. *Calyx* 3·5 mm. longus; lobi inter se longitudine subaequales, posteriores in unum late deltoideum emarginulatum connati, laterales infimusque anguste deltoidei acuti. *Vexillum* subrotundatum, 8 mm. diametro, basi cuneatum; alae oblongae, basi obtuse sagittatae, 7·5 mm. longae, ungui gracili 1·5 mm. longo suffultae, medio carinae adhaerentes; carina obtusa, 7 mm. longa, ungui 2 mm. longo suffulta. *Stamen* vexillare liberum. *Ovarium* multi-ovulatum, lineare, 7 mm. longum; stylus circiter 2 mm. longus, stigmate capitato terminali. *Legumen* compressum, ad 4·5 cm. longum, 4·5 mm. latum, ad 9-articulatum, stipitatum vel saepe ob semina inferiora abortiva longe pseudo-stipitatum, pilis iis ramulorum similibus tectum.

Cultivated at Chiengmai from seed collected at Lakon Lumpang, in mixed jungle, 360 m., *Kerr*, 1534,—"standard white, keel and wings purple."

Lourea obcordata, *Desf.*—F.B.I., ii. p. 154.
Chiengmai, on ruins, 300 m., *Kerr*, 1360.
Distr. S.E. Asia to Australia.

Phylacium majus, *Coll. et Hemsl.*, Journ. Linn. Soc., xxviii. p. 44, cum tab.; Prain, Journ. As. Soc. Beng., lxvi. p. 387.
Chiengmai, by a stream on Doi Sootep, 540 m., *Kerr*, 925.
Distr. Upper Burma.

Alysicarpus bupleurifolius, *DC.*—F.B.I., ii. p. 158; *Hosseus*, i. p. 487 et ii. p. 392.
Chiengmai, in eng jungle on Doi Sootep, 300–450 m., *Kerr*, 808; Wang Djao, *Hosseus*, 109; Ban Jang, *Hosseus*, 703.
Distr. Tropical Asia and Africa.

Lespedeza parviflora, *Kurz*, For. Fl. Burma, i. p. 381; F.B.I., ii. p. 144; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 45; Prain, Journ. As. Soc. Beng., lxvi. p. 377; Hosseus, ii. p. 399. *L. decora*, Hosseus, i. p. 490, *non* Kurz.
Chiengmai, Doi Sootep, 300–1650 m., *Kerr*, 951, 1587b, *Hosseus*, 288.
Distr. Upper Burma.

Lespedeza pinetorum, *Kurz*—For. Fl. Burma, i. 381.
Chiengmai, in open jungle on Doi Sootep, 1200–1500 m., *Kerr*, 1645.
Distr. Tenasserim.

Abrus cantoniensis, *Hance*, var. **Hossei**, *Craib*, a typo foliolis rigidioribus numerosioribus utrinque usque ad 15, legumine paullo latiore, apice vix tam obliquo distinguendus.—*Craib*, Kew Bull. 1911, p. 39; Hosseus, ii. p. 292. *A. pulchellus*, Hosseus, i. p. 491, *non* Wall.
Kau Phra Dang, 320 m., *Hosseus*, 155; Chiengmai, Meh Hia, 450 m., *Kerr*, 1411.

Abrus precatorius, *Linn.*—F.B.I., ii. p. 175; Williams, Bull. Herb. Boiss., v. (1905) p. 21; Hosseus, i. p. 491.
Chiengmai, 300 m., *Kerr*, 1479; Bangkok, *Schomburgk*, 307.
Distr. Tropics.
Lao name, Kum deng (ex *Kerr*).

There is another species of *Abrus* (?) represented at Kew collected by Dr. Kerr at Chiengmai (No. 588) and again by Luang Vanpruk (No. 157), which is quite distinct, most notably in its leaflets, which are large for the genus, but in the absence of fruit I hesitate to refer it definitely to this genus.

Clitoria macrophylla, *Wall.*—F.B.I., ii. p. 209.
Chiengmai, in deciduous jungle on Doi Sootep, 390 m., *Kerr*, 645.
Distr. Burma.

Clitoria mariana, *Linn.*—F.B.I., ii. p. 208; Hosseus, i. p. 491 et ii. p. 394.
Chiengmai, Doi Sootep, 1200–1650 m., *Kerr*, 671.
Distr. Khasia, Burma, Yunnan, America.

Clitorea ternatea, *Linn.*—F.B.I., ii. p. 208 ; Williams, Bull. Herb. Boiss., v. (1905) p. 21 ; Hosseus, i. p. 491.

Bangkok, *Zimmermann*, 5, 15, 156.

Distr. Tropics.

Dumasia villosa, *DC.*, var. **leiocarpa**, *Baker*, F.B.I., ii. p. 183 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 47 ; Hosseus, ii. p. 397.

Chiengmai, Doi Sootep, 1200–1650 m., *Kerr*, 883, *Hosseus*, 205.

Distr. Sikkim, Khasia, Burma, Ceylon.

Shuteria hirsuta, *Baker*, F.B.I., ii. p. 182 ; Prain, Journ. As. Soc. Beng., lxvi. p. 402 ; Williams, Bull. Herb. Boiss., v. (1905) p. 961 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 47 ; Hosseus, i. p. 492. *Pueraria anabaptista*, Kurz—Hosseus, ii. p. 399.

Chiengmai, Doi Sootep, 1000 m., *Hosseus*, 232 ; Doi Kum, 360 m., *Kerr*, 1653 ; Ban Meh Tah, 300 m., *Kerr*, 998 ; Raheng, *Lindhard*, 51.

Distr. Sikkim, Khasia, Burma, Yunnan, Sumatra.

For uniformity with F.B.I., l.c., I refer this plant to *Shuteria*, but it would probably be more satisfactory to follow Kurz and place it in *Pueraria*. Both varieties of Kurz (*typica* and *glabrescens*) occur.

Shuteria suffulta, *Benth.*—F.B.I., ii. p. 182 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 47.

Chiengmai, Doi Sootep, 660 m., *Kerr*, 1570, 1570b.

Distr. Burma.

Shuteria vestita, *Wight et Arn.*—F.B.I., ii. p. 181 ; Prain, Journ. As. Soc. Beng., lxvi. p. 401.

Chiengmai, Doi Sootep, *Kerr*, 1573.

Distr. India, Yunnan, Indo-China, Philippines, New Guinea.

Erythrina lithosperma, *Miq.*—F.B.I., ii. p. 190 ; For. Fl. Burma, i. p. 367 ; Prain, Journ. As. Soc. Beng., lxvi. p. 411 ; Hosseus, ii. p. 398 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 47. *E. stricta*, Hosseus, i. p. 492, *non* Roxb.

Mountains between Lampoon and Lakon, 450 m., *Kerr*, 969 ; Doi Chieng Dao, 500 m., *Hosseus*, 419.

Distr. Burma, Malaya.

Lao name, Tawng Lan (ex *Kerr*).

Erythrina ovalifolia, *Roxb.*—F.B.I., ii. p. 189 ; For. Fl. Burma, i. p. 367 ; Hosseus, i. p. 492.

Chiengmai, 300 m., in marshy ground, *Kerr*, 1673 ; Bangkok (ex *Hosseus*).

Distr. Bengal, Assam, Burma, Ceylon, Malaya.

Lao name, Tawng Lan (ex *Kerr*).

Erythrina suberosa, *Roxb.*—F.B.I., ii. p. 189 ; For. Fl. Burma, i. p. 369 ; Prain, Journ. As. Soc. Beng., lxvi. p. 410.

Near Pang Pooey, 420 m., *Kerr*, 1001.

Distr. India.

Lao name, Tawng Kee (ex *Kerr*).

Apios carnea, *Benth.*—F.B.I., ii. p. 188 ; Prain, Journ. As. Soc. Beng., lxvi. p. 410.

Chiengmai, in evergreen jungle on Doi Sootep, 1500 m., *Kerr*, 881.

Distr. Nepaul, Khasia, Upper Burma (ex *Prain*), (Yunnan ?).

Mucuna pruriens, *DC.*—Hosseus, i. p. 492 et ii. p. 399.

Doi Intanon, 600 m. (ex *Hosseus*).

This may be referable rather to *M. prurita*, Hook.

Butea frondosa, *Roxb.*—F.B.I., ii. p. 194 ; For. Fl. Burma, i. p. 364 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 48 ; Hosseus, i. p. 492.

Chiengmai, 300 m., "scattered about paddy fields and in scrub jungle," *Kerr*, 1663.

Distr. India, Burma, Assam, Java—often cultivated.

Lao name, Kwou (ex *Kerr*).

Butea superba, *Roxb.*—F.B.I., ii. p. 195 ; For. Fl. Burma, i. p. 365.

Lakon, Palat, 300 m., *Kerr*, 1009.

Distr. Bengal, Burma.

Lao name, Mai Kwou Kreua (ex *Kerr*).

Spatholobus Roxburghii, *Benth.*—F.B.I., ii. p. 193 ; Prain, Journ. As. Soc. Beng., lxvi. p. 412. *Butea parviflora*, Roxb.—For. Fl. Burma, i. p. 365.

Chiengmai, in eng jungle on Doi Sootep, 450 m., *Kerr*, 723.

Distr. India, Burma, Assam, Yunnan.

Grona Grahami, *Benth.*—F.B.I., ii. p. 191 ; Prain, Journ. As. Soc. Beng., lxvi. p. 411.

Chiengmai, in eng jungle on Doi Sootep, 300–600 m., *Kerr*, 837.

Distr. Bengal (ex *Prain*), Burma.

Pueraria alopecuroides, *Craib*, Kew Bull. 1910, p. 276.

Hills between Muang Prow and Chieng Dao, 600 m., *Kerr*, 1044.

Distr. Yunnan, Upper Burma.

According to Dr. Kerr, the standard is white, with a yellow spot at the base, and the keel is purple.

Pueraria Candollei, *Grah.*—F.B.I., ii. p. 197 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 47 ; Prain, Journ. As. Soc. Beng., lxvi. p. 419.

Near Muang Prow, 300 m., *Kerr*, 992.

Distr. Andaman Is. (ex *Prain*), Burma.

Pueraria Collettii, *Prain*, Journ. As. Soc. Beng., lxvi. p. 420. *P. sp. nov.*, Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 48.

Chiengmai, in open grassy jungle on Doi Sootep, 1560 m., *Kerr*, 1386.

Distr. Upper Burma, Yunnan.

Pueraria phaseoloides, *Benth.*—F.B.I., ii. p. 199 ; Prain, Journ. As. Soc. Beng., lxvi. p. 420 ; Williams, Bull. Herb. Boiss., v. (1905) p. 21 ; Hosseus, i. p. 493.

Chiengmai, 300 m., *Kerr*, 1468.

Distr. Chittagong, Assam, Burma, Yunnan, Philippines.

Pueraria siamica, *Craib*, ab affini *P. Collettii*, Prain, foliolis acuminatis acutis, stipellis duplo longioribus, racemis gracilioribus longioribus haud tam densis, pedicellis sub anthesin gracilibus calyce longioribus distincta.

Herba scandens ; ramuli 3 mm. diametro, molliter albo-tomentelli. *Folia* pinnatim trifoliolata ; petioli 4–7 cm. longi, supra canaliculati, indumento ut ramulis ; foliola ovata, apice acuminata, acuta, basi terminalia cuneata, lateralia obliqua, rotundata, 9–14 cm. longa, 4–6·5 cm. lata, margine integro, chartacea, supra hispidula, subtus molliter pubescentia, nervis lateralibus utrinque 5–6 cum nervulis supra conspicuis subtus prominentibus ; petioluli ad 4 mm. longi ; foliola terminalia a lateralibus 2–3·2 cm. distantia ; stipellae ad 6 mm. longae. *Racemi* solitarii axillares vel ad apices ramulorum paniculati, graciles, ad 32 cm. longi, nodis basalibus 2·5–3·5 cm., intermediis ad 1·5 cm. distantibus ; bracteae lanceolatae, acutae, 2 mm. longae ; pedicelli graciles, ad 3·5 mm. longi. *Calycis* lobi 1 mm. longi, duo supremi in unum connati, tubus 2 mm. longus. *Corolla* purpurea, longe exserta ; vexillum amplum, reflexum, emarginatum, basi auriculatum, 4·5 mm. longum, 6 mm. latum, ungui circiter 2 mm. longo ; alae oblongo-obovatae, basi appendiculatae, 5·5 mm. longae, 2·5 mm. latae, ungui 2·5 mm. longo ; carina obtusa, 4 mm. longa, 2 mm. lata, ungui 2·5 mm. longo. *Stamen* vexillare ima basi liberum, medio cum ceteris connatum ; antherae uniformes. *Ovarium* 3 mm. altum, 9- ovulatum, stylo glabro.—*Craib*, Kew Bull. 1911, p. 40.

Chiengmai, Doi Sootep, 720 m., *Kerr*, 831.

Since the publication of this species additional material has been received at Kew from Upper Burma and also from Siam of *P. Collettii*. After a careful examination of this material the writer has come to the conclusion that *P. siamica* is probably only a low level form of *P. Collettii*.

Pueraria Wallichii, *DC.*—F.B.I., ii. p. 198 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 47 ; Prain, Journ. As. Soc. Beng., lxvi. p. 419 ; Hosseus, i. p. 493 et ii. p. 399.

Chiengmai, Doi Sootep, 540–1700 m., *Kerr*, 878, 1556, 1556b, *Hosseus*, 207.

Distr. E. Himalayas, Burma, Yunnan.

Cruddasia insignis, *Prain*, Journ. As. Soc. Beng., lxvii. p. 287.

Chiengmai, in open jungle on top of Doi Sootep, 1500–1650 m., *Kerr*, 727.

Distr. Upper Burma.

Canavalia ensiformis, *DC.*—F.B.I., ii. p. 195 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 48 ; Williams, Bull. Herb. Boiss., v. (1905) p. 21.

Chiengmai, 300 m., *Kerr*, 1532b ; Bangkok, *Zimmermann*.

Distr. Tropics—often cultivated.

Canavalia lineata, *DC.*—Prain, Journ. As. Soc. Beng., lxvi. p. 418. *C. obtusifolia*, Baker, F.B.I., ii. p. 196, *non* DC.

Sriracha, trailing over the beach, *Kerr*, 2130.

Distr. Coasts of Tropical Asia and Australia.

Phaseolus adenanthus, *G. F. Mey.*—F.B.I., ii. p. 200; Prain, Journ. As. Soc. Beng., lxvi. p. 421; Williams, Bull. Herb. Boiss., v. (1905) p. 21; Hosseus, i. p. 495.

Chiengmai, bank of river, 300 m., *Kerr*, 1636.

Distr. Tropics.

Dysolobium dolichoides, *Prain*, Journ. As. Soc. Beng., lxvi. p. 427? *Vigna dolichoides*, Baker, F.B.I., ii. p. 206. *Vigna vexillata*, Williams, Bull. Herb. Boiss., v. (1905) p. 22 et Hosseus, i. p. 495, in part, *non* Benth.

Bangkok, *Schomburgk*, 300.

Distr. Bengal, Assam, Burma.

Schomburgk's plant differs from the specimens in Herb. Kew referred to this species in having the leaflets occasionally trilobed—a not uncommon occurrence in this section of the *Phaseoleae*. There is no trace on the herbarium sheet of the name *Pueraria phaseoloides*, which, according to Williams, l.c., had been erroneously given to this plant, but in any case the name he suggests is equally inapplicable.

Dysolobium grande, *Prain*, Journ. As. Soc. Beng., lxvi. p 427. *Phaseolus velutinus*, Grah.—F.B.I., ii. p. 204.

Chiengmai, Meh Hia, 330 m., *Kerr*, 1407; Kampeng Pet, 105 m., *Kerr*, 2162.

Distr. Burma, Assam, Chittagong.

Vigna luteola, *Benth.*—F.B.I., ii. p. 205; Prain, Journ. As. Soc. Beng., lxvi. p. 428.

Chiengmai, 300 m., *Kerr*, 1664.

Distr. Tropics.

Vigna pilosa, *Baker*, F.B.I., ii. p. 207; Prain, Journ. As. Soc. Beng., lxvi. p. 429; Hosseus, ii. p. 401.

Wang Djao, 100 m. (ex *Hosseus*).

Distr. India, Burma, Assam, Formosa, Philippines.

Vigna vexillata, *Benth.*—F.B.I., ii. p. 206; Prain, Journ. As. Soc. Beng., lxvi. p. 429; Hosseus, i. p. 495, in part et ii. p. 401.

Wang Djao, 100 m. (ex *Hosseus*).

Distr. Tropics.

Pachyrhizus angulatus, *Rich.*—F.B.I., ii. p. 207; Prain, Journ. As. Soc. Beng., lxvi. p. 518. *Pueraria Thunbergiana*, Hosseus, i. p. 493 et ii. p. 399, *non* Benth.

Sriracha, Nawng Yai Bu, in scrub jungle, 15 m., *Kerr*, 2145; Meh Ping, Wang Djao, *Hosseus*, 30.

Distr. Tropics.

Dolichos falcatus, Craib, Kew Bull. 1911, p. 41, *non* Klein. *D. biflorus*, Hosseus, ii. p. 397, *non* Linn.

Chiengmai, in eng jungle, 540 m., *Kerr*, 834; Wang Djao, *Hosseus* 45.

This plant which was referred doubtfully to *D. falcatus* by the writer proves on further examination to be quite distinct from that species. It is equally distinct from *D. biflorus*. Its nearest ally is *Dolichos tenuicaulis* (*Phaseolus tenuicaulis*, Baker) which is represented in Herb. Kew by *Lace*, 4270 and *Robertson*, 14 both from

Upper Burma. From *D. tenuicaulis* it is however quite distinct and it may prove to be a new species but the writer has not yet had the opportunity to investigate it fully.

Dunbaria conspersa, *Benth.*—F.B.I., ii. p. 218.
Chiengmai, in mixed jungle at base of Doi Sootep, 300–330 m., *Kerr*, 1483, 1483b.
Distr. Bengal, Assam, Burma, Hongkong, Malay Archipelago.

Dunbaria fusca, *Kurz*—Prain, Journ. As. Soc. Beng., lxvi. p. 434 ; Hosseus, ii. p. 397. *Phaseolus fuscus*, Wall.—F.B.I., ii. p. 204 ; Hosseus, i. p. 495, in part.
Chiengmai, Doi Sootep, 900 m., *Kerr*, 813 ; Nakontai (ex *Hosseus*).
Distr. Upper Burma, China.

Dunbaria glandulosa, *Prain*, Journ. As. Soc. Beng., lxvi. p. 433. *Atylosia rostrata*, Baker, F.B.I., ii. p. 216.
Chiengmai, in scrub jungle, 300 m., *Kerr*, 1398.
Distr. Burma (ex *Prain*), India.

Dunbaria longeracemosa, *Craib*, Kew Bull. 1910, p. 277 ; Hosseus, ii. p. 397. *Phaseolus fuscus*, Hosseus, i. p. 495, at least in part, *non* Wall.
Chiengmai, Doi Sootep, *Kerr*, 917 ; Kau Phra Dang, 320 m., *Hosseus*, 148.
Lao name, Dawk Kung (ex *Kerr*).

Dunbaria podocarpa, *Kurz*—F.B.I., ii. p. 218 ; Hosseus, ii. p. 397. *Vigna retusa*, Williams, Bull. Herb. Boiss., v. (1905) p. 21 et Hosseus, i. p. 495, *non* Walp.
Chiengmai, evergreen jungle on Doi Sootep, 750–1050 m., *Kerr*, 870, 2277 ; Nakontai, 600 m., *Hosseus*, 717 ; Siam (?), *Candler*.
Distr. Burma, China.
As this is the only plant belonging to this section collected by Candler, it must be the plant enumerated by Williams, l.c., as *Vigna retusa*. There is, however, no evidence on the sheet of the plant having been so determined by Williams.

Atylosia barbata, *Baker*, F.B.I., ii. p. 216 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 48.
Doi Chieng Dao, 450 m., *Kerr*, 1050.
Distr. Throughout Indo-China, Malaya.

Atylosia crassa, *Prain*, Journ. As. Soc. Beng., lxvi. p. 45 et p. 431. *A. mollis*—F.B.I., ii. p. 213, in part ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 48 ; Hosseus, i. p. 493.
Chiengmai, mixed jungle on Doi Sootep, 330 m., *Kerr*, 945, 945a ; Ban Djan, 360 m., *Hosseus*, 368.
Distr. India to foot of Himalayas, Burma, Assam, Tonkin, Java, Philippines.

Atylosia scarabaeoides, *Benth.*—F.B.I., ii. p. 215 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 48.
Chiengmai, in scrub jungle on Doi Sootep, 330 m., *Kerr*, 1497.
Distr. Tropical Asia, Australia and Africa.

Atylosia trichodon, *Dunn*?
Chiengmai, in evergreen jungle on Doi Sootep, 1500 m., *Kerr*, 2289.
Distr. Yunnan.

Rhynchosia longipetiolata, *Hosseus*, Fedde Repert. Nov. Sp., iv. p. 291 ; Hosseus, i. p. 494 et ii. p. 399.
Kau Phra Dang, *Hosseus*, 150.

Eriosema chinense, *Vogel*—F.B.I., ii. p. 219 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 49 ; Hosseus, ii. p. 397.
Chiengmai, in eng jungle on Doi Sootep, 450 m., *Kerr*, 722 ; Wang Djao (ex *Hosseus*).
Distr. S.E. Asia, Australia.

Flemingia bracteata, *Wight*—For. Fl. Burma, i. p. 372 ; Prain, Journ. As. Soc. Beng., lxvi. p. 437. *F. strobilifera*, var. *bracteata*, Baker, F.B.I., ii. p. 227.
Piang Pooey, 420 m., *Kerr*, 981.
Distr. India, Burma, Yunnan.

Flemingia Chappar, *Ham.*—F.B.I., ii. p. 227 ; For. Fl. Burma, i. p. 371 ; Prain, Journ. As. Soc. Beng., lxvi. p. 438.
Ban Meh Chang, 300 m., *Kerr*, 980.
Distr. Bengal, Burma.

Flemingia ferruginea, *Ham.*—Prain, Journ. As. Soc. Beng., lxvi. p. 440 ; Hosseus, ii. p. 398. *F. congesta* Roxb., var. *Wightiana*, Baker, F.B.I., ii. p. 229, in part.
Banks of Meh Ping, opposite Ban Salu, *Hosseus*, 381.
Distr. Burma.

Flemingia Kerrii, *Craib*, affinis *F. congestae*, Roxb., sed bracteis parvis, floribus haud tam congestis, calycis brevioris indumento parciore, eiusque lobis supremis alte connatis, corolla longe exserta, legumine minore distincta.
Fruticulus 1·5 m. altus (ex *Kerr*) ; ramuli primo subtriangulares mox teretes, glabrescentes, cortice rubro-brunneo striato obtecti. *Folia* trifoliolata ; petioli 3–5 cm. longi, alati, parce pilosi ; stipulae subpersistentes, lineari-lanceolatae, acuminatae, acutae, 8 mm. longae, 2 mm. latae ; foliola elliptica vel oblongo-elliptica, apice acuminata, mucronata, basi terminalia cuneata, lateralia obliqua, subrotundata, 6–10 cm. longa, 2·5–5 cm. lata, margine integro, chartacea, supra breviter puberula, subtus nervis pilosula, nervis lateralibus utrinque circiter 7 [pseudo-trinervia ob nervos basales valde obliquos] supra conspicuis subtus cum nervulis prominulis ; petioluli vix 5 mm. longi, brunneo-tomentelli. *Racemi* 1·5–3 cm. longi ; bracteae parvae, ovatae, acutae, vix 2 mm. longae. *Calyx* extra breviter sericeus, intra lobis praecipue imperfecte sericeus praetereaque extra loborum margines versus dense rubro-glandulosus ; tubus 1·75 mm. longus ; lobus infimus 4 mm. longus, lobi laterales 2·5 mm. longi, duo supremi in unum apice bifidum connati, omnes lanceolati vel late lanceolati, acuti. *Corolla* purpurea ; vexillum obovato-ellipticum, apice brevissime obtuseque acuminatum, basi appendiculatum, 7 mm. longum, 4 mm. latum, ungui circiter 1·5 mm. longo ; alae anguste oblongae, basi breviter appendiculatae, 5 mm. longae, 1·5 mm. latae, ungui 2 mm. longo ; carina obtusa, basi truncata, 5 mm. longa, 2·5 mm. lata, ungui 2·5 mm. longo. *Ovarium* vix 2 mm. altum, stylo superne glabro. *Legumen* 1 cm. longum, 0·5 cm. diametro, puberulum.—*Craib*, Kew Bull. 1911, p. 42.
Near Lakon, in dry stream bed, 300 m., *Kerr*, 976.

Flemingia sericans, *Kurz*—For. Fl. Burma, i. p. 373 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 50 ; Prain, Journ. As. Soc. Beng., lxvi. p. 442. *F. Wallichii*, Baker, F.B.I., ii. p. 229, in part, *non* Wight et Arn.

Chiengmai, in mixed jungle on Doi Sootep, 330 m., *Kerr*, 1698.

Distr. Upper Burma.

Flemingia sootepensis, *Craib*, affinis *F. semialatae*, Roxb., a qua racemis quam folia brevioribus, calycis indumento breviore, lobis valde brevioribus, leguminibus oblongis angustioribus recedit.

Fruticulus vix 1 m. altus (ex *Kerr*) ; ramuli primo triangulares, adpresse brunneo-pubescentes, mox fere glabri, cortice rubro-brunneo lenticellato obtecti. *Folia* trifoliolata ; petioli 3–7 cm. longi, alati, glabrescentes ; stipulae lineari-lanceolatae, acuminatae, acutae, 2 cm. longae, 3 mm. latae, caducae ; foliola plerumque lanceolata, apice acuminata, mucronata, basi terminalia cuneata, lateralia obliqua, rotundata, ad 19 cm. longa, 6·5 cm. lata, margine integro, chartacea, supra glabrescentia, subtus nervis puberula, nervis lateralibus utrinque circiter 6 supra conspicuis subtus prominulis ; petioluli 3–5 mm. longi, fulvo-hirsuti. *Racemi* 2–10 cm. longi ; bracteae ovato-lanceolatae, acuminatae, ad 6 mm. longae, 2 mm. latae. *Calyx* pilosulus, distincte nervatus ; tubus 3 mm. longus ; lobi lineari-lanceolati, acutissimi, laterales supremique 4 mm. longi, infimus paulo longior. *Corolla* alba ; vexillum late ellipticum, basi auriculatum, 6 mm. longum, 4 mm. latum, ungui 2·5 mm. longo ; alae oblongae, appendiculatae, 5 mm. longae, 1·5 mm. latae, ungui gracili circiter 3 mm. longo ; carina obtusa, haud appendiculata, 5·75 mm. longa, 1·5 mm. lata, ungui gracili, 3 mm. longo. *Ovarium* vix 2 mm. altum. *Legumen* oblongum, styli basi persistente apiculatum, 1·3 cm. longum, 6 mm. latum.—*Craib*, Kew Bull. 1911, p. 43 ; Hosseus, ii. p. 398.

Chiengmai, in evergreen jungle on Doi Sootep, 600–900 m., *Kerr*, 934, *Hosseus*, 309.

The nervation of the calyx tube is scarcely so distinct in the specimen collected by Hosseus as in that collected by Kerr and the racemes are slightly longer but it apparently belongs to this species.

Flemingia stricta, *Roxb.*—F.B.I., ii. p. 228 ; For. Fl. Burma, i. 375.

Chiengmai, Doi Sootep, 330 m., *Kerr*, 1550a, 1550b.

Distr. N. India, Burma, Assam (China ?).

Dalbergia cultrata, *Grah.*—F.B.I., ii. p. 233 ; For. Fl. Burma, i. p. 342 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 50 ; Prain, Ann. Roy. Bot. Gard. Calc., x. p. 55, t. 32.

Chiengmai, Doi Sootep, 450–600 m., *Kerr*, 1075, 1707 ; Radbouri, *Teysmann* (ex *Prain*).

Distr. Burma.

Dalbergia dongnaiensis, *Pierre ex Prain*, Ann. Roy. Bot. Gard. Calc., x. p. 97, t. 81.

Chiengmai, in "pah paa" jungle on Doi Sootep, 330–450 m., *Kerr*, 1714.

Distr. Cochinchina (ex *Prain*).

This species is not represented in Herb. Kew and Kerr's plant has been identified from description.

Dalbergia fusca, *Pierre ex Prain*, Ann. Roy. Bot. Gard. Calc., x. p. 56, t. 33.

Chiengmai, in open jungle on Doi Sootep, 1350 m., *Kerr*, 1746.

Distr. Cochinchina and Burma (ex *Prain*), Yunnan.

Dalbergia Kerrii, *Craib*, e grege *Canarum* affinis *D. Kurzii*, Prain, a qua foliolis formae diversae numerosioribus, stipulis magnis, legumine haud glabro vix reticulato differt.

Arbor ad 15 m. alta (ex *Kerr*); ramuli ad 7 mm. diametro, juventute fulvo-tomentelli, mox glabri, cortice striato vel irregulariter fisso obtecti. *Folia* pinnata, ad 16·5 cm. longa, rhachi fulvo-tomentella; petioli 5 cm. longi; stipulae deciduae, lanceolatae, apice acutae, 14 mm. longae, 5 mm. latae; foliola 15, oblonga, elliptica vel obovato-elliptica, apice breviter acuminata, obtusa, basi rotundata vel cuneata, 2–7 cm. longa, 1·4–2·3 cm. lata, chartacea, margine integra, ciliolata, supra glabra nisi nervis glabrescentibus, subtus fere glabra costa fulvo-tomentella excepta, nervis lateralibus utrinque circiter 7 intra marginem arcuatis utrinque conspicuis, nervis transversis uti reticulatione gracili subtus conspicuis. *Inflorescentia* ante folia evoluta, ex axillis veteribus, paniculis ad 11 cm. longis 17 cm. latis. *Pedunculi* fulvo-tomentelli; pedicelli graciles, circiter 3 mm. longi. *Calyx* campanulatus, 4 mm. longus, 4 mm. diametro, extra fere glaber; dentes subaequales, circiter 1·5 mm. longi, obtusi. *Corolla* longe exserta, glabra; vexillum late ellipticum, apice emarginatum, basi cuneatum, reflexum, 6·5 mm. longum, 3 mm. latum; alae oblongae, apice obtusae, basi hastatae, 4 mm. longae, 2 mm. latae, ungui 2 mm. longo; carina alis subaequalis, basi hastata, ungui 2 mm. longo. *Ovarium* 3 mm. altum, 1 mm. latum, sparse pubescens, stipite 2·5 mm. longo, uniovulatum; stylus subulatus, 1·75 mm. longus, basi vix glaber. *Legumen* late ligulatum, apice rotundatum, apiculatum, basi cuneatum, 7–8 cm. longum, 2·2 cm. latum, breviter molliterque pubescens, haud conspicue reticulatum, stipite 5 mm. longo ut legumine pubescente.—*Craib*, Kew Bull. 1911, p. 43.

Muang Prow, Meh Kaut, 450 m., *Kerr*, 1033.

Lao name, Mai Kĕt (ex *Kerr*).

Dalbergia rimosa, *Roxb.*—F.B.I., ii. p. 232: Prain, Ann. Roy. Bot. Gard. Calc., x. p. 38, t. 11.

Chiengmai, Doi Sootep, 750 m., *Kerr*, 1096.

Distr. Sikkim, Assam, Burma, Yunnan, Tonkin.

Dalbergia stipulacea, *Roxb.*—F.B.I., ii. p. 237, in part: For. Fl. Burma, i. p. 346; Prain, Journ. As. Soc. Beng., lxvi. p. 451; Prain, Ann. Roy. Bot. Gard. Calc., x. p. 102, t. 87.

Chiengmai, Doi Sootep, 660–900 m., *Kerr*, 560, 1175.

Distr. Sikkim, Assam, Burma, Yunnan.

Dalbergia tamarindifolia, *Roxb.*—F.B.I., ii. p. 234; For. Fl. Burma, i. p. 348; Prain, Journ. As. Soc. Beng., lxvi. p. 448; Prain, Ann. Roy. Bot. Gard. Calc., x. p. 69, t. 48; Williams, Bull. Herb. Boiss., v. (1905) p. 21; Hosseus, i. p. 490.

Lem Tong Lan, *Murton*, 124.

Distr. India, Burma, China, Malaya, Philippines.

Dalbergia volubilis, *Roxb.*—F.B.I., ii. p. 235 ; For. Fl. Burma, i. p. 346 ; Prain, Journ. As. Soc. Beng., lxvi. p. 449 ; Prain, Ann. Roy. Bot. Gard. Calc., x. p. 100, t. 85.

Lakon, Hooey Meh Tan, 360 m., *Kerr*, 1014.

Distr. India, Burma, Assam.

Lao name, Pi Pohng (ex *Kerr*).

Pterocarpus macrocarpus, *Kurz*—F.B.I., ii. p. 239 ; For. Fl. Burma, i. p. 349 ; Prain, Journ. As. Soc. Beng., lxvi. p. 455.

Korat, 600–900 m., *Witt.*

Distr. Burma.

Siamese name, Mai Padouk (ex *Witt*).

Derris monticola, *Prain*, Journ. As. Soc. Beng., lxvi. p. 361. *Millettia monticola*, Kurz—F.B.I., ii. p. 106 ; For. Fl. Burma, i. p. 354.

Chiengmai, in evergreen jungle on Doi Sootep, 720 m., *Kerr*, 1731.

Distr. Burma.

Derris robusta, *Benth.*—F.B.I., ii. p. 241 ; For. Fl. Burma, i. p. 338 ; Prain, Journ. As. Soc. Beng., lxvi. p. 458 ; Hosseus, ii. p. 395.

Chieng Dao, 350 m., *Hosseus*, 523.

Distr. India, Burma, Yunnan.

Derris scandens, *Benth.*—F.B.I., ii. p. 240 ; For. Fl. Burma, i. p. 339 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 50; Prain, Journ. As. Soc. Beng., lxvi. p. 458 ; Williams, Bull. Herb. Boiss., v. (1905) p. 21 ; Hosseus, i. p. 491.

Sriracha, sea shore, *Kerr*, 2037.

Distr. S.E. Asia to Australia.

Peltophorum dasyrachis, *Kurz ex Baker*, F.B.I. ii. p. 257 ; Hosseus, i. p. 483. *Baryxylum dasyrhachis*, Pierre—Williams, Bull. Herb. Boiss., v. (1905) p. 19.

Sriracha, Nawng Kai Ploi, in evergreen jungle, 90 m., *Kerr*, 2119 ; Korat, in dry deciduous forest, 60–90 m., *Witt.*

Distr. Malaya.

Siamese name, Mun Si (Moon See)—ex *Kerr.*

Mezoneuron hymenocarpum, *Hook. f. et Jackson*, Index Kewensis, iii. p. 223 (absque descriptione) ; Prain, Journ. As. Soc. Beng., lxvi. p. 472. *M. pubescens*, Baker, F.B.I., ii. p. 259, *non* Desf.

Chiengmai, in scrub jungle on Doi Sootep, 300–330 m., *Kerr*, 1329, 1329a.

Distr. Burma.

Lao name, Nahn Chahn (ex *Kerr*).

The authorship of this combination is usually credited to Wight and Arnott but although they certainly state in the Prodromus that Wallich's plant was a *Mezoneuron* they did not make the combination. The species is very poorly represented in Herb. Kew and it is not without some hesitation that Kerr's plant is referred to it.

Pterolobium macropterum, *Kurz*—For. Fl. Burma, i. p. 410; Prain, Journ. As. Soc. Beng., lxvi. p. 473. *P. indicum*, A. Rich., var. *macropterum*, Baker, F.B.I., ii. p. 259.

Chiengmai, in scrub jungle on Doi Sootep, 300 m., *Kerr*, 1782, 1782a.

Distr. Burma.

Caesalpinia digyna, *Rottl.*—F.B.I., ii. p. 256; For. Fl. Burma, i. p. 407; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 51; Williams, Bull. Herb. Boiss., v. (1905) p. 19; Hosseus, i. p. 483.

Chiengmai, in scrub jungle on Doi Sootep, 300 m., *Kerr*, 806.

Distr. India, Malaya.

Caesalpinia minax, *Hance*, var. **burmanica**, *Prain*, Journ. As. Soc. Beng., lxvi. p. 469. *C. Morsei*, Dunn, Journ. Linn. Soc., xxxv. p. 492.

Chiengmai, in scrub jungle on banks of Meh Ping, 300 m., *Kerr*, 758.

Distr. Burma, China, Tonkin.

Caesalpinia Sappan, *Linn.*—F.B.I., ii. p. 255; For. Fl. Burma, i. p. 405; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 51.

Chiengmai, Doi Sootep, 330 m., *Kerr*, 1262.

Distr. S.E. Asia.

Lao name, Mai Fang (ex *Kerr*).

Poinciana regia, *Bojer*—F.B.I., ii. p. 260, *in nota*: For. Fl. Burma, i. p. 404; Hosseus, i. p. 483.

Bangkok, *Zimmermann*, 162.

Distr. Tropics—often cultivated.

Cassia alata, *Linn.*—F.B.I., ii. p. 264; Williams, Bull. Herb. Boiss., v. (1905) p. 19; Hosseus, i. p. 481.

Bangkok, *Zimmermann*, 26.

Distr. Tropics.

Cassia Bakeriana, *Craib*, a *C. nodosa*, Ham., calyce corollaque multo majoribus, a *C. javanica*, Linn., foliolorum magnitudine et forma, ab ambabus indumento recedit.

Folia 35·5 cm. longa, petiolo fulvo-puberulo terete 4 cm. longo suffulta; foliola utrinque 10, oblonga vel terminalia oblanceolata, apice acuta vel breviter acuminata, basi obliqua, cuneata, 6·3–8·5 cm. longa, 1·7–3 cm. lata, subchartacea, utrinque, subtus costa nervisque praecipue, densius pilosula, nervis lateralibus utrinque circiter 10, supra vix conspicuis subtus prominulis, costa supra sicco impressa; petioluli 2 mm. longi. *Racemi* laterales (?), 4·5–7·5 cm. longi; bracteae sub anthesin conspicuae, lanceolatae, apice acutae, ad 1 cm. longae, 3 mm. latae, utrinque pilosulae. *Pedicelli* 6 cm. attingentes, sulcati, pilosuli. *Calycis* lobi lanceolati vel ovato-lanceolati, obtusiusculi, 0·9–1·2 cm. longi, 2–3 mm. lati, utrinque ut bracteis pilosuli. *Petala* subaequalia, lanceolata, oblongo-lanceolata vel ovato-lanceolata, acutiuscula, 3·5–4·5 cm. longa, 1·2–2·5 cm. lata, utrinque pilosula, basi in unguem 0·5 cm. longum contracta. *Stamina* omnia fertilia, 3 alia longe superantia eorumque filamentis medio incrassatis, filamentis glabris. *Ovarium* longe stipitatum, arcuatum, albo-pubescens, stylo brevi apice incurvo.—*Craib*, Kew Bull. 1911, p. 45. *C. nodosa*, Hosseus, i. p. 481, *non* Ham.

Chiengmai, Doi Sootep, 720–1500 m., *Hosseus*, 478, *Kerr*, 1729.

To this species probably belongs Griffith's Prome Hill specimen (Kew Distr., 1909) mentioned in Flora of British India, vol. ii. p. 267 by Mr. Baker as a variety of *C. javanica* or a new species.

In his first paper Hosseus enumerates this plant as *Cassia nodosa* and in his second maintains *C. Bakeriana* but in a footnote remarks that he is doubtful if it can be retained as a good species. In the writer's opinion it is readily distinguished from *C. nodosa* by the size of the flowers. Of true *C. javanica* there are in Herb. Kew only two apparently wild specimens, both collected in Java and these agree exactly with various cultivated specimens, *e.g.* those issued under that name from the Calcutta Gardens. The Philippine plant which commonly passes under the name of *C. javanica* is quite distinct from that species in several points, the more evident of which are the indumentum and colour of the branchlets, the shape and size of the stipules, the shape and indumentum of the leaflets and the shape of the petals and bracts. After a careful examination of the material in Herb. Kew the writer is convinced that so far as that material goes *C. javanica* is confined to Java.

Cassia Fistula, *Linn.*—F.B.I., ii. p. 261 ; For. Fl. Burma, i. p. 391 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 51 ; Prain, Journ. As. Soc. Beng., lxvi. p. 473 ; Hosseus, i. p. 481.

Chiengmai, Doi Sootep, 660 m., *Kerr*, 1194, 1194a ; Bangkok, *Zimmermann*, 60.

Distr. India, China, Malaya—often planted in the tropics.

Lao name, Lom Leng (ex *Kerr*).

Cassia Garrettiana, *Craib*, *C. racemosae*, Mill., sensu stricto affinis, sed foliolis ovato-lanceolatis vel anguste ovatis acuminatis acutis, racemis brevius pedunculatis in axillis plerumque geminis, floribus majoribus recedit.

Frutex vel *arbuscula* (ex *Kerr*), ramulis puberulis cortice rubro-brunneo striato obtectis. *Folia* abrupte pinnata, circiter 15 cm. longa, petiolo communi 3·5–5 cm. longo suffulta, petiolo ima basi puberulo et ut rhachi supra canaliculato ; foliola utrinque 7, ovato-lanceolata vel anguste ovata, apice acuminata, acuta, basi rotundata vel late cuneata, 3·5–8 cm. longa, 2–3·6 cm. lata, rigide chartacea, utrinque glabra, margine cartilagineo, nervis lateralibus utrinque saltem 10 intra marginem arcuatis supra conspicuis vel prominulis subtus subconspicuis vel fere prominulis, nervis transversis uti reticulatione gracili subtus conspicuis ; petioluli 2–4 mm. longi, supra canaliculati, glabri vel fere glabri. *Racemi* axillares, gemini, ad 10 cm. longi, in paniculas terminales dispositi : pedunculus communis plerumque vix 1·5 cm. longus ; rhachis valde nodosa, ut pedunculo densius molliter puberula ; pedicelli sub anthesin 2·5–3 cm. longi, puberuli, infructescentes ad 3·5 cm. longi, paullo incrassati ; bracteae parvae, deciduae. *Sepala* rotundata vel late elliptica, 0·7–1 cm. longa, 0·5–0·7 cm. lata. *Petala* obovata vel obovato-elliptica, 1 cm. longa, 8 mm. lata, breviter unguiculata. *Stamina* fertilia 7. *Ovarium* subsessile, fere glabrum. *Legumen* compressum, 15 cm. longitudinis vix attingens, 3·6 cm. latum, apiculatum, in stipitem 5 mm. longum attenuatum, valvis brunneis tenuiter

reticulatis : semina transversa.—*Craib*, Kew Bull. 1912, p. 151. *C. racemosa*, Benth., Trans. Linn. Soc., xxvii. p. 549, quoad plantam Schomburgkianam, *vix* Mill.

Sriracha, in scrub jungle near sea level, *Kerr*, 2067.

Distr. Battambong, Anhin, *Schomburgk*, 251.

Siamese name, Me San (ex *Kerr*).

A specimen collected by Luang Vanpruk at Phre, 120 m., probably also belongs here though the leaflets are much larger.

Cassia glauca, *Lamk.*—F.B.I., ii. p. 265 ; For. Fl. Burma, i. p. 394 ; Prain, Journ. As. Soc. Beng., lxvi. p. 477 ; Hosseus, i. p. 481 et ii. p. 393.

Ban Phra Dang, 120 m., *Hosseus*, 169 ; Muang Phre, 150 m., *Luang Vanpruk*, 177.

Distr. S.E. Asia—often cultivated in the tropics.

According to L. Vanpruk the flowers are edible and the Lao name is Kilek Ban.

Since determining the *Cassiae* it has been discovered that the labels of 169 and 170 had been interchanged. Thus Hosseus 169 is *C. glauca* and 170 is *C. Tora*.

Cassia Leschenaultiana, *DC.*—Prain, Journ. As. Soc. Beng., lxvi. p. 477. *C. mimosoides*, Linn., var. *Wallichiana*, Baker, F.B.I., ii. p. 266. *C. mimosoides*, Linn., var. *Aechynomene*, Hosseus, i. p. 481 et ii. p. 393.

Chiengmai, Doi Sootep, 800 m., *Hosseus*, 257 ; in open grassy jungle on Doi Sootep 1050 m., *Kerr*, 1516.

Distr. India, Burma, Malaya.

Cassia mimosoides, *Linn.*—F.B.I., ii. p. 266 ; Prain, Journ. As. Soc. Beng., lxvi. p. 477. *C. mimosoides*, Linn., var. *typica*, Hosseus, i. p. 481 et ii. p. 393.

Wang Djao, 100 m., *Hosseus*, 129.

Distr. S.E. Asia.

Cassia occidentalis, *Linn.*—F.B.I., ii. p. 262 ; Prain, Journ. As. Soc. Beng., lxvi. p. 474 ; Williams, Bull. Herb. Boiss., v. (1905) p. 19 ; Hosseus, i. p. 482 et ii. p. 393.

Chiengmai, on waste ground, 300 m., *Kerr*, 759 ; Paknampo (ex *Hosseus*).

Distr. Tropics.

Cassia pumila, *Lamk.*—F.B.I., ii. p. 266.

Chiengmai, in deciduous jungle on Doi Sootep, 300 m., *Kerr*, 840.

Distr. Tropical Asia, N. Australia.

Cassia siamea, *Lamk.*—F.B.I., ii. p. 264 ; For. Fl. Burma, i. p. 392 ; Williams, Bull. Herb. Boiss., v. (1905) p. 19 ; Hosseus, i. p. 482 et ii. p. 393. *C. sp.*, Hosseus, i. p. 482.

Phre, 120–180 m., *Luang Vanpruk*, 135 ; Ban Takilek, 300 m. *Hosseus*, 321 ; Chiengmai, commonly planted, *Kerr*, 1397.

Distr. India, Malaya.

Lao name, [Mai] Ki Lek (ex *Kerr*).

Hosseus 321 in Herb. Kew consists of leaves only but is apparently this species.

Cassia Sophera, *Linn.*—F.B.I., ii. p. 262; Hosseus, i. p. 482.
Bangkok, *Zimmermann*, 14.
Distr. Tropics.

Cassia timoriensis, *DC.*—F.B.I., ii. p. 265; For. Fl. Burma, i. p. 393; Prain, Journ. As. Soc. Beng., lxvi. p. 477; Hosseus, i. p. 482 et ii. p. 394.
Chiengmai, in scrub jungle on Doi Sootep, 300 m., *Kerr*, 797; Klong Wang Djao, *Hosseus*, 86.
Distr. India, throughout Indo-China, Malaya.

Cassia Tora, *Linn.*—F.B.I., ii. p. 263, in part; Prain, Journ. As. Soc. Beng., lxvi. p. 475; Hosseus, i. p. 482 et ii. p. 394 (var. *glabra*).
Chiengmai, on waste ground, 300 m., *Kerr*, 807; Bangkok, *Zimmermann*, 13; Ban Phra Dang, 120 m., *Hosseus*, 170.
Distr. S.E. Asia.

Bauhinia acuminata, *Linn.*—F.B.I., ii. p. 276; For. Fl. Burma, i. p. 396; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 51. *B. tomentosa*, Linn. aff., Hosseus, i. p. 480.
Chiengmai, mixed jungle on Doi Sootep, 300 m., *Kerr*, 610; Bangkok, *Zimmermann*, 144.
Distr. India, Burma, China, Malaya.

Bauhinia anguina, *Roxb.*, var. **Horsfieldii**, *Craib. Lasiobema Horsfieldii*, Miq.
Sriracha, Nawng Kaw, in evergreen jungle, 30 m., *Kerr*, 2080.
Distr. (of var.) Java.
The variety, previously represented in Herb. Kew by Java specimens only, can be readily distinguished from *B. anguina* by the pilose ovary stipe.

Bauhinia Blancoi, *Baker*, F.B.I., ii. p. 278. *B. coccinea*, Williams, Bull. Herb. Boiss., v. (1905) p. 18, *non* DC.
Anhin, *Schomburgk*, 286.
Distr. Philippines, Malay Archipelago.

Bauhinia bracteata, *Grah.*—Craib, Kew Bull. 1911 p. 46, *excl.* reference and distribution.
Gulf of Siam, *Finlayson* in Wall. Cat. 5802 in Herb. Kew; Meh Ping, Ban Kaw, in mixed jungle, *Kerr*, 2024; Sriracha, Nawng Kaw, 30 m., *Kerr*, 2071.
Lao name, Paw Kien, Siamese name, S'Leng Pun, (ex *Kerr*).
The Tenasserim plant quoted in F.B.I., ii. p. 282 does not belong to this species.

Bauhinia Harmsiana, *Hosseus*, Fedde Repert. Nov. Sp., iv. (1907) p. 290; Hosseus, i. p. 479 et ii. p. 392.
Banks of Meh Ping Rapids up to Chiengmai, 135–300 m., *Kerr*, 507.

Bauhinia Kerrii, *Gagnep.*
Chiengmai, by stream in evergreen jungle on Doi Sootep, 840 m., *Kerr*, 1740.

Bauhinia malabarica, *Roxb.*—F.B.I., ii. p. 277 ; For. Fl. Burma, i. p. 399 ; Prain, Journ. As. Soc. Beng., lxvi. p. 495.

Chiengmai, in mixed jungle on Doi Sootep, 660 m., *Kerr*, 1781 ; Sriracha, in open scrub jungle, 15 m., *Kerr*, 2113 ♂, 2113a ♀.

Distr. India, Burma, Malay Archipelago, Queensland (*B. Hawkesiana*, F. M. Bailey).

Bauhinia polycarpa, *Wall.*—For. Fl. Burma, i. p. 396 ; F.B.I., ii. p. 276 ; Prain, Journ. As. Soc. Beng., lxvi. p. 495. *B. baviensis*, Drake, Journ. de Bot., v. p. 217.

Chiengmai, mixed jungle on Doi Sootep, 360 m., *Kerr*, 1247 ; Phre, 120–180 m., *Luang Vanpruk*, 136.

Distr. Burma, Tonkin.

Kerr remarks that the flowers are pale green.

Bauhinia purpurea, *Linn.*—F.B.I., ii. p. 284 : For. Fl. Burma, i. p. 398 ; Hosseus, ii. p. 392.

Raheng, 120 m., *Kerr*, 914 ; Salween, Muang Youam, *Witt* ; Phre, 120–180 m., *Luang Vanpruk*, 137 ; Wang Djao (ex *Hosseus*).

Distr. India, Burma, China, Singapore—often cultivated.

Bauhinia unguiculata, *Baker*, F.B.I., ii. p. 277.

Anhin, *Schomburgk*, 241.

Bauhinia variegata, *Linn.*—F.B.I., ii. p. 284 ; For. Fl. Burma, i. p. 397 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 51 ; Hosseus, ii. p. 393.

Chiengmai, Doi Sootep, 330–360 m., *Kerr*, 525 ; Doi Chieng Dao, *Hosseus*, 407, 471.

Distr. India, Burma, China.

Hosseus l.c. refers his 471 to *B. variegata* and his 407 to "*B. variegata*, Linn. vel sp." 407 is not quite typical *B. variegata* but the material in Herb. Kew is rather poor.

In a footnote to ii. p. 392 Hosseus explains that his determinations of *B. purpurea* and *B. variegata* had by an oversight become reversed in his first paper so the present writer has given no references to that paper for the species in question.

Afzelia siamica, *Craib*, a speciebus indicis adhuc descriptis foliolis usque 5-jugis, staminibus 7, floribus majusculis recedit.

Arbor alta, ramis patentibus, ramulis gracilibus teretibus juventute puberulis cortice virido-brunneo lenticellato obtectis. *Folia* 16–26 cm. longa, glabra, petiolis basi incrassatis 2·5–3 cm. longis suffulta ; foliola 3–5-juga, oblonga, apice obtusa, emarginata, basi rotundata vel truncata, 4–9 cm. longa, 3·5–4·5 cm. lata, supra viridia, subtus pallidiora vel glauca, chartacea, margine integro leviter cartilagineo, nervis lateralibus utrinque numerosis, intra marginem arcuatis cum nervulis utrinque conspicuis ; petioluli 3–4 mm. longi, rugosi. *Racemi* terminales et axillares, simplices vel interdum e basi simpliciter ramosi. *Pedicelli* ad 1 cm. longi, ut calyce bracteisque albo-tomentosi ; bracteae ovato-oblongae, apice acutiusculae, 9 mm. longae, 4 mm. latae, ante anthesin deciduae ; bracteolae bracteis similes sed tomentellae et sub anthesin subpersistentes. *Calycis* tubus superne leviter dilatatus, vix 1 cm. longus, medio 2·5 mm. diametro ; lobi 4, virides, oblongi, subaequales, usque ad 1·5 cm. longi, 1·1 cm. lati. *Petalum* unum roseum ; unguis 1 cm. longus, intra basin versus parce lanatus ; limbus subrotundatus,

9 mm. longus, 8 mm. latus, apice emarginatus, dorso medio pubescens. *Stamina* 7 ; filamenta 3–3·5 cm. longa, apicem versus attenuata, basi parce pubescentia ; staminodia 3, quorum duo circiter 1 cm. longa, tertium 3 mm. longum, omnia inferne pubescentia. *Ovarium* stipitatum, suturis et stipe lanatum ; stylus glaber, vix 3 cm. longus. *Legumen* oblongum, 18 cm. longum, 7·5 cm. latum, valvis lignosis 7 mm. crassis.

Chiengmai, Ban Meh Sah, by streams, 330 m., *Kerr*, 1068 ; Siam, *Teysmann* (ex *For. Fl. Burma* et *Prain*).

Distr. Upper Burma (ex *Prain*).

Since the above description was drawn up the writer has discovered that the plant described is *Pahudia xylocarpa*, Kurz. After a careful examination of the material in Herb. Kew the writer is convinced that *Pahudia* and *Afzelia* should be merged into one genus as already suggested by Prain and *Pahudia javanica* be named *Afzelia javanica*.

The plant above described should be named *Afzelia xylocarpa*, Craib, comb. nov. with *Pahudia xylocarpa*, Kurz and *Afzelia siamica*, Craib, as synonyms.

Sindora siamensis, *Teysm. ex Miq.*—For. Fl. Burma, i. p. 413 ; Prain, Journ. As. Soc. Beng., lxvi. p. 481. *S. Wallichii*, var. *siamensis*, Baker, F.B.I., ii. p. 268. *S. Wallichii*, Williams, Bull. Herb. Boiss., v. (1905) p. 18 ; Hosseus, i. p. 479.

Korat, 60–90 m., *Witt* ; Ratbouri, *Teysmann*, 6050.

By a slip Williams and Hosseus quote the Ratbouri plant as having been collected by Dr. Wallich.

Neptunia oleracea, *Lour.*— F.B.I., ii. p. 285 ; Williams, Bull. Herb. Boiss., v. (1905) p. 18 ; Hosseus, i. p. 478.

Chiengmai, 300 m., *Kerr*, 841.

Distr. Tropics.

Lao name, Pŭk Nawng (ex *Kerr*).

Entada scandens, *Benth.*—F.B.I., ii. p. 287 ; For. Fl. Burma, i. p. 416 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 53 ; Hosseus, i. p. 478 et ii. p. 397.

Chiengmai, Doi Sootep, in evergreen jungle, 900 m., *Kerr*, 1808.

Distr. Tropics.

Lao name, M'Ba (ex *Kerr*).

Adenanthera pavonina, *Linn.*—F.B.I., ii. p. 287 ; For. Fl. Burma, i. p. 417 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 53 ; Williams, Bull. Herb. Boiss., v. (1905) p. 18 ; Hosseus, i. p. 478.

Chiengmai, Doi Sootep, 330 m., *Kerr*, 1780, 1935 ; Phre, Hooey Kamin, 180 m., *Luang Vanpruk*, 204.

Distr. S.E. Asia—often cultivated in the tropics.

Lao name, Kam Tou (ex *Luang Vanpruk*).

Mimosa pudica, *Linn.*—F.B.I., ii. p. 291 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 53 ; Prain, Journ. As. Soc. Beng., lxvi. p. 506 ; Williams, Bull. Herb. Boiss., v. (1905) p. 18 ; Hosseus, i. p. 478.

Chiengmai, 300 m., *Kerr*, 1890.

Distr. Tropics.

Leucaena glauca, *Benth.*—F.B.I., ii. p. 290; Williams, Bull. Herb. Boiss., v. (1905) p. 18; Hosseus, i. p. 478.
Bangkok, *Zimmermann*, 166; Paknampo, *Witt*, 10.
Distr. Tropics.

Xylia Kerrii, *Craib et Hutchinson*, Kew Bull. 1909, p. 357; Hook. Ic. Plant., tab. 2932.
Chiengmai, Doi Sootep, 330–660 m., *Kerr*, 547, 1722.
Distr. Burma.
Lao name, Mai Deng (ex *Kerr*).
Hosseus 433 from Doi Sootep (*X. dolabriformis*, Hosseus, i. p. 478 in part and ii. p. 401 ?) is apparently a form of this species with the indumentum on the under-surface of the leaf not quite so dense. *Zimmermann* 117 also referred to *X. dolabriformis* by Hosseus, i. p. 478 differs in the more membranous leaves which are glabrous. Neither of these plants has the stipitate gland on the anther characteristic of *X. dolabriformis*.

Acacia Catechu, *Willd.*, forma **catechuoides**, *Prain*, Journ. As. Soc. Beng., lxvi. p. 508. *A. Catechu*, Willd.—F.B.I., ii. p. 295, in part; For. Fl. Burma, i. p. 422, in part.
Chiengmai, in scrub jungle, 300 m., *Kerr*, 1230.
Lao name, Si Siat (ex *Kerr*).
Distr. N. India, Burma, Assam.

Acacia Farnesiana, *Willd.*—F.B.I., ii. p. 292; For. Fl. Burma, i. p. 420; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 53; Williams, Bull. Herb. Boiss., v. (1905) p. 18; Hosseus, i. p. 477.
Chiengmai, in scrub jungle, 300 m., *Kerr*, 1669, 1669a.
Distr. Tropics—often cultivated.
Lao name, Kŭm Tai (ex *Kerr*).

Acacia pennata, *Willd.*—F.B.I., ii. p. 297; For. Fl. Burma, i. p. 424; Hosseus, i. p. 477 et ii. p. 392.
Meh Ping Banks, Kampeng (ex *Hosseus*).
Distr. India, Burma, Assam, Malaya.

Acacia pennata, *Willd.*, var. **arrophula**, *Baker*, F.B.I., ii. p. 298; Prain, Journ. As. Soc. Beng., lxvi. p. 510.
Chiengmai, foot of Doi Sootep, 300 m., *Kerr*, 720.
Distr. E. Himalayas, Burma.

Albizzia Lebbek, *Benth.*—F.B.I., ii. p. 298; For. Fl. Burma i. p. 427; Hosseus, i. p. 477.
Bangkok, *Zimmermann*, 157.
Distr. Tropics—often planted.

Albizzia lebbekoides, *Benth.*—Prain, Journ. As. Soc. Beng., lxvi. p. 513; Hosseus, ii. p. 392.
Wat Mai, *Hosseus*, 1; Meh Ping, Ban Na, *Kerr*, 2027—common along banks of Meh Ping in Rapids; Siam, *Teysmann* (ex *Prain*).
Distr. Upper Burma, Malay Archipelago.
Lao name, Mai Kang (ex *Kerr*).

Albizzia lucida, *Benth.*—F.B.I., ii. p. 299; For. Fl. Burma, i. p. 429; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 54.
Phre, 240 m., *Luang Vanpruk*, 201.
Distr. N.E. India, Assam, Burma, Yunnan, Tonkin—occasionally cultivated.
Lao name, Panté (ex *Luang Vanpruk*).

Albizzia myriophylla, *Benth.*—F.B.I., ii. p. 300 ; For. Fl. Burma, i. p. 426 ; Prain, Journ. As. Soc. Beng., lxvi. p. 515 ; Williams, Bull. Herb. Boiss., v. (1905) p. 17 ; Hosseus, i. p. 477. *A. procera*, Williams, Bull. Herb. Boiss., v. (1905) p. 18, at least in part, *non* Benth.

Anhin, *Schomburgk*, 268.

Distr. India, Burma, Malay Peninsula.

Albizzia odoratissima, *Benth.*—F.B.I., ii. p. 299 ; For. Fl. Burma, i. p. 427 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 54.

Chiengmai, Doi Sootep, 720 m., *Kerr*, 1790.

Distr. India, Burma, Yunnan, Hainan.

Albizzia stipulata, *Boiv.*—F.B.I., ii. p. 300 ; For. Fl. Burma, i. p. 426 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 54 ; Prain, Journ. As. Soc. Beng., lxvi. p. 515.

Chiengmai, 300 m., *Kerr*, 1858.

Distr. India, Burma, Assam, Hainan, Java, Borneo.

Albizzia Teysmanni, *Kurz*, For. Fl. Burma, i. p. 428.

Radbouri (ex *For. Fl. Burma*).

Pithecolobium angulatum, *Benth.*—F.B.I., ii. p. 306 ; For. Fl. Burma, i. p. 430 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 54.

Chieng Dao, 520 m., *Kerr*, 1052 ; Chiengmai, Doi Sootep, 720 m., *Kerr*, 1072.

Distr. Throughout Indo-China, Malaya.

Pithecolobium glomeriflorum, *Kurz*—For. Fl. Burma, i. p. 430 ; Prain, Journ. As. Soc. Beng., lxvi. p. 517 ; Hosseus, ii. p. 399. *Albizzia glomeriflora*, Kurz—F.B.I., ii. p. 300 ; Hosseus, i. p. 477.

Chiengmai, in evergreen jungle on Doi Sootep, 1200–1600 m., *Kerr*, 561, *Hosseus*, 506.

Distr. Burma.

Enterolobium Saman, *Prain*, Journ. As. Soc. Beng., lxvi. p. 252. *Pithecolobium Saman*, Benth.

Chiengmai, planted along roads, 300 m., *Kerr*, 573.

Introduced—a native of Guiana.

Rosaceae.

Parinarium albidum, *Craib*, a *P. sumatrano*, Benth., foliis subtus albo-arachnoideis recedit.

Arbor mediocris (ex *Kerr*) ; ramuli primo subferrugineo-tomentosi, mox glabri vel fere glabri cortice rubro-brunneo lenticellato obtecti. *Folia* plerumque oblonga, apice truncata vel retusa, interdum breviter obtuse acuminata, basi parum inaequalia, truncata vel late cuneata, 5–14 cm. longa, 2·5–8·5 cm. lata, subcoriacea, supra costa subferrugineo-tomentella excepta fere glabra, subtus albo-arachnoidea, nervis lateralibus utrinque 12–15 obliquis supra conspicuis subtus prominentibus, nervis transversis supra conspicuis subtus prominulis ; petioli 1 cm. longitudinis vix attingentes, supra subferrugineo-tomentelli, canaliculati, subtus sericei, convexi ; stipulae caducae. *Flores* in paniculas terminales ad 12 cm. longas 11·5 cm. latas dispositi ; pedicelli perbreves ; bracteae ovatae, acuminatae, acutae, concavae, deciduae, 3 mm. longae, 2 mm. latae, dorso adpresse pubescentes. *Calyx* extra subferrugineo-tomentellus, intra villosus ;

tubus 2 mm. longus; lobi oblongi vel deltoidei, acuti, 1·75 mm. longi, 1–1·5 mm. lati. *Petala* 1·5 mm. longa, vix 1 mm. lata, ciliolata. *Stamina* 7, filamentis ad 1·5 mm. longis glabris. *Ovarium* 1·5 mm. altum, villosum, ovulis solitariis erectis; stylus 2·5 mm. longus, inferne villosus.—*Craib*, Kew Bull. 1912, p. 152.

Chiengmai, in mixed jungle on lower slopes of Doi Sootep, 300 m., *Kerr*, 604; Kanburi, *Teysmann*.

Prunus Hosseusii, *Diels*, Fedde Repert. Nov. Sp., iv. (1907) p. 289; Hosseus, ii. p. 391.

Chiengmai, Doi Sootep, 1650 m., *Hosseus*, 260.

More complete material is necessary to establish this as a species distinct from *P. Puddum*, Roxb.

Prunus Puddum, *Roxb.*—F.B.I., ii. p. 314; For. Fl. Burma, i. p. 434; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 54.

Chiengmai, in evergreen jungle on Doi Sootep, 1500 m., *Kerr*, 1772 (in fruit).

Distr. Nepaul, Darjeeling, Bhotan, Burma.

Rubus ellipticus, *Smith*—F.B.I., ii. p. 336; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 54. *R. flavus*, Ham.—For. Fl. Burma, i. p. 438.

Chiengmai, Doi Sootep, 900 m., *Kerr*, 1119.

Distr. India, Burma, Philippines, China.

Rubus (Malachobatus) Kerrii, *Rolfe*, ab affini *R. birmanico*, Hook. f., ramulis velutinis, stipulis floribusque minoribus recedit.

Ramuli petiolique velutini, aculeis sparsis brevibus uncinatis instructi. *Folia* quinque- vel obscure septem-loba, 5–8 cm. longa, 6–8 cm. lata, subcoriacea, denticulata, supra bullato-rugosa, glabra, venis hirsutis, subtus lacunoso-reticulata, griseo-tomentosa, in nervis hirsutula; lobi deltoideo-ovati, praesertim intermedii paucidentati; petioli 3–4 cm. longi. *Stipulae* bracteaeque ambitu oblongae, pectinatae, 0·6–1·2 cm. longae, velutinae. *Flores* in racemos breves axillares et terminales dispositi. *Pedicelli* 5 mm. longi. *Sepala* deltoideo-ovata, subobtusa, 5–6 mm. longa, velutina. *Petala* subsessilia, orbicularia vel latissime ovato-orbicularia, 4 mm. longa. *Stamina* numerosissima; filamenta 3·5 mm. longa, glabra. *Carpella* numerosa, glabra; styli 6–7 mm. longi, conferti, glabri.—*Rolfe* apud Craib, Kew Bull. 1911, p. 49.

Chiengmai, on edges of clearings on Doi Sootep, 720 m., *Kerr*, 648.

With the general facies of *R. birmanicus*, this species is very distinct in its pubescence, the texture and veining of its leaves, the shape of its stipules and bracts, and in its having smaller and more congested flowers.

Rubus lasiocarpus, *Smith*—F.B.I., ii. p. 339; For. Fl. Burma, i. p. 439; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 55; Hosseus, ii. p. 391.

Doi Chieng Dao, 2180 m. (ex *Hosseus*).

Distr. India, Burma, Assam, Java.

Rubus Volkensianus, Hosseus, ii. p. 391.

Pahombuk, near Muang Fang (ex *Hosseus*).

Saxifragaceae.

Dichroa febrifuga, *Lour.*—F.B.I., ii. p. 406; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 56.
Chiengmai, in evergreen jungle on Doi Sootep, 600 m., *Kerr*, 1125.
Distr. N. India, China, Burma, Khasia, Tonkin, Malaya.

Crassulaceae.

Bryophyllum calycinum, *Salisb.*—F.B.I., ii. p. 413; Hosseus, ii. p. 391.
Ban Muang Gang, 300 m., *Hosseus*, 363; Chiengmai, 300 m., *Kerr*, 1637.
Distr. Tropics.
Lao name, Lupp Lap (ex *Kerr*).

Droseraceae.

Drosera Burmanni, *Vahl*—F.B.I., ii. p. 424; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 57; Hosseus, ii. p. 390.
Chiengmai, *Hosseus*, 320, 463, 493, *Kerr*, 575.
Distr. Trop. Asia, Africa, and Australia.

Drosera peltata, *Sm.*, var. **lunata**, *C. B. Clarke*, F.B.I., ii. p. 425; Hosseus, ii. p. 390.
Chiengmai, Doi Sootep, 1200–1650 m., *Kerr*, 673, *Hosseus*, 535.
Distr. India, Burma, China, Malaya.

Rhizophoraceae.

Rhizophora conjugata, *Lamk.*—F.B.I., ii. p. 436; For. Fl. Burma, i. p. 447; Williams, Bull. Herb. Boiss., iv. (1904) p. 1032.
Sriracha, just below high water mark, *Kerr*, 2093.
Distr. Coasts of Tropical Asia.

Ceriops Roxburghiana, *Arn.*—F.B.I., ii. p. 436; For. Fl. Burma, i. p. 448; Williams, Bull. Herb. Boiss., iv. (1904) p. 1032.
Sriracha, on beach between high and low tide mark, *Kerr*, 2126.
Distr. Tropical coasts of Old World.

Carallia integerrima, *DC.*—F.B.I., ii. p. 439; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 57; Williams, Bull. Herb. Boiss., iv. (1904) p. 1032. *C. lucida*, Kurz, For. Fl. Burma, i. p. 451.
Phre, Me Chwa, 120 m., *Luang Vanpruk*, 215.
Distr. S.E. Asia to Australia.

Combretaceae.

Terminalia bialata, *Kurz* ?—F.B.I., ii. p. 449; For. Fl. Burma, i. p. 456.
Chiengmai, in mixed jungle on Doi Sootep, 360 m., *Kerr*, 1328.
Distr. Burma.

Terminalia Chebula, *Retz.*—F.B.I., ii. p. 446 ; For. Fl. Burma, i. p. 456.

Chiengmai, Doi Sootep, 300–450 m., *Kerr*, 665.

Distr. India, Burma.

Lao name, M'Nă (ex *Kerr*).

Terminalia mucronata, *Craib et Hutchinson*, Kew Bull. 1909, p. 358.

Chiengmai, in deciduous jungle on Doi Sootep, 540 m., *Kerr*, 593.

Lao name, Mai Pue Laut (ex *Kerr*).

Terminalia obliqua, *Craib*, *T. tripteroidi*, Craib, facie similis, foliis longius petiolatis et acuminatis distinguenda.

Arbor (ex *Kerr*), ramulis primo breviter adpresse pubescentibus mox glabris cortice rubro-brunneo vel cinereo-brunneo reticulato-striato obtectis. *Folia* plerumque ovato-lanceolata, apice acuminata, acuta vel obtusiuscula, basi inaequalia, cuneata, late cuneata vel fere rotundata, 7–11·5 cm. longa, 2·6–5·5 cm. lata, subcoriacea, utrinque glabra, nervis lateralibus utrinque 7–9 supra conspicuis subtus prominulis, nervis transversis uti reticulatione gracili subtus conspicuis ; petioli ad 1·7 cm. longi, supra planiusculi vel parum canaliculati, subtus convexi, fusci. *Spicae* in paniculas dispositae. *Fructus* oblongus, 3 cm. altus, 3-alatus, alis vix 1 cm. latis.—*Craib*, Kew Bull. 1912, p. 153.

Sriracha, Nawng Kaw, 30 m., *Kerr*, 2073.

Siamese name, Kŭm Chai (Kam Chai)—*Kerr*.

Terminalia tomentosa, *Bedd.*—F.B.I., ii. p. 447 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 57. *T. alata*, Roth—For. Fl. Burma, i. p. 458.

Chiengmai, in deciduous jungle on Doi Sootep, 540 m., *Kerr*, 626.

Distr. India, Burma.

Lao name, Ba Hok Fa (ex *Kerr*).

Terminalia tripteroides, *Craib*, a *T. triptera*, Stapf, fructu multo majore recedit.

Frutex vel *arbuscula* (ex *Kerr*); ramuli juventute fusci, puberuli, mox glabri, cortice rubro-brunneo lenticellato obtecti. *Folia* plerumque elliptica vel late elliptica, apice acuminata, acutiuscula, basi plerumque late cuneata, 5-10 cm. longa, 3·3–5·8 cm. lata, rigide chartacea vel fere subcoriacea, supra nisi costa pilosula glabra, subtus costa nervisque primariis parce pilosula, mox glabra, nervis lateralibus utrinque 6–7 supra conspicuis subtus prominentibus, nervis transversis subtus prominulis ; petioli circiter 8 mm. longi, supra parum canaliculati, pilosuli. *Spicae* graciles, in paniculas dispositae, rhachi ramulisque subferrugineo-pilosis. *Receptaculum* 1 mm. altum, glabrum. *Calyx* pallide viridis (ex *Kerr*), circiter 1·25 mm. altus, fere ad medium lobatus, lobis deltoideis obtusis pauperrime ciliatis, extra glaber, intra pubescens. *Stamina* exserta. *Stylus* 3 mm. longus. *Fructus* 2·8 cm. longus, 3–alatus, alis circiter 8 mm. latis, glaber.—*Craib*, Kew Bull. 1912, p. 152.

Meh Ping, Doi Noi, 300 m., in deciduous jungle, *Kerr*, 2010 ; Muang Hawt, 240 m., in deciduous jungle, *Kerr*, 2010a.

2010 is described as a scrambling shrub and 2010a as a tree.

Calycopteris floribunda, *Lamk.*—F.B.I., ii. p. 449 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 57 : Hosseus, ii. p. 417. *C. nutans*, For. Fl. Burma, i. p. 468.

Chiengmai, Doi Sootep, 300 m., *Kerr*, 961 ; Ban Djan, 350 m., *Hosseus*, 366 ; Raheng, *Witt*, 23 ; Koh Chang, near Lem Dan, *Schmidt*, 141.

Distr. S. India, Burma, Assam, Malay Peninsula.

Lao name, Mai Sau (ex *Kerr*).

Anogeissus acuminata, *Wall.*, var. lanceolata, *C. B. Clarke*, F.B.I., ii. p. 451.

Near Lampoon, 300 m., *Kerr*, 965.

Distr. India, Burma.

Lao name, Mai Hio (ex *Kerr*).

Lumnitzera racemosa, *Willd.*—F.B.I., ii. p. 452 ; For. Fl. Burma, i. p. 468.

Sriracha, on marshy ground by sea, *Kerr*, 2134.

Distr. Tropical coasts of Asia, Australia, Mascerene Is., E. Africa.

Combretum deciduum, *Coll. et Hemsl.*, Journ. Linn. Soc., xxviii. p. 58 ; Hosseus, ii. p. 417. *C. ovale*, Kurz, For. Fl. Burma, i. p. 462, *non* R. Br. ; F.B.I., ii. p. 453, sub *C. piloso.*

Lakon, Pak Kaung Nai, 300 m., *Kerr*, 971 ; Chieng Dao, 500 m., *Hosseus*, 461.

Distr. Burma.

Combretum extensum, *Roxb.*—For. Fl. Burma, i. p. 463 ; F.B.I., ii. p. 458.

Chiengmai, Doi Kum, 360 m., *Kerr*, 1652 ; near Lampoon, in scrub jungle, 300 m., *Kerr*, 966 ; Phre, Hooey Pha Kam, *Luang Vanpruk*, 209.

Distr. India, Burma, Assam, Yunnan, Java, Philippines.

Combretum quadrangulare, *Kurz*—F.B.I., ii. p. 456 ; For. Fl. Burma, i. p. 465.

Chiengmai, along streams, 300 m., *Kerr*, 1393 and in scrub jungle, *Kerr*, 1820.

Distr. Burma.

Combretum squamosum, *Roxb.*—F.B.I., ii. p. 456 ; For. Fl. Burma, i. p. 463.

Chiengmai, Doi Sootep, 750 m., *Kerr*, 1804.

Distr. N. India, Assam, Burma, Philippines, Malaya.

Quisqualis indica, *Linn.*—F.B.I., ii. p. 459 ; For. Fl. Burma, i. p. 467 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 58 ; Williams, Bull. Herb. Boiss., iv. (1904) p. 1032 ; Hosseus, ii. p. 418.

Chiengmai, in scrub jungle, 300 m., *Kerr*, 1842 ; Muang Fang (ex *Hosseus*) ; Phre, 120–180 m., *Luang Vanpruk*, 160 ; Pak-nampo, *Witt*, 18.

Distr. Tropical Asia and Africa.

Myrtaceae.

Tristania rufescens, *Hance*, Journ. Bot., v. (1876) p. 259. *T. burmannica*, Griff., var. *tomentosa*, Hosseus, ii. p. 418, *an* Duthie ?
Chiengmai, Doi Sootep, 390–600 m., *Kerr*, 516, *Hosseus*, 423.
Distr. Phu-quoc.
Lao name, Mai Kaw (ex *Kerr*).

Psidium Guyava, *Linn.*—For. Fl. Burma, i. p. 476 ; F.B.I., ii. p. 468.
Bangkok, *Zimmermann*, 154.
Distr. Naturalised throughout India and Indo-China.

Rhodomyrtus tomentosa, *Wight*—F.B.I., ii. p. 469.
Sriracha, in scrub jungle below 15 m., *Kerr*, 2090.
Distr. India, China, Japan, Philippines, Tonkin, Cochinchina, Malaya.

Decaspermum paniculatum, *Kurz*—F.B.I., ii. p 470 ; For. Fl. Burma, i. p. 475.
Chiengmai, in evergreen jungle on Doi Sootep, 900 m., *Kerr*, 1839.
Distr. Burma, Assam, Malaya.

Eugenia balsamea, *Wight*—For. Fl. Burma, i. p. 485 ; F.B.I., ii. p. 499.
Chiengmai, Doi Sootep, 720 m., *Kerr*, 920.
Distr. Sikkim, E. Bengal, Burma, Assam, Yunnan.

Eugenia cymosa, *Lamk.*—F.B.I., ii. p. 482 ; For. Fl. Burma, i. p. 486.
Sriracha, Nawng Zai Bu, 15 m., *Kerr*, 2144.
Distr. Assam, Burma, Malaya.
Siamese name, Wa Som (ex *Kerr*).

Eugenia formosa, *Wall.*—F.B.I., ii. p. 471 ; For. Fl. Burma, i. p. 492.
Chiengmai, Doi Sootep, 300–450 m., *Kerr*, 545.
Distr. Burma, Bengal.

Eugenia fruticosa, *Roxb.*—F.B.I., ii. p. 499 ; For. Fl. Burma, i. p. 485.
Chiengmai, in mixed jungle at foot of Doi Sootep, 300 m., *Kerr*, 625.
Distr. Burma, Bengal.

Eugenia grata, *Wight*—F.B.I., ii. p. 486 ; For. Fl. Burma, i. p. 480.
Chiengmai, Doi Sootep, 300–450 m., *Kerr*, 554.
Distr. Burma, Malaya, (China ?).

Eugenia Kurzii, *Duthie*, var. vel species nova ei valde affinis.
Chiengmai, Doi Sootep, 700–900 m., *Kerr*, 1084, 1795, *Hosseus*, 479.
These specimens appear to be intermediate between *E. Kurzii*, Duthie and *E. albiflora*, Duthie. *Zimmermann*, 160, from Bangkok, is also closely allied to these. Hosseus, ii. p. 418, gives his 479 as *E. Kurzii*.
According to Kerr the Lao name of this plant and also of *E. fruticosa* is Mai Hah.

Eugenia oblata, *Roxb.*—F.B.I., ii. p. 492 ; For. Fl. Burma, i. p. 488.

Chiengmai, by a stream on Doi Sootep, 660 m., *Kerr*, 1785.

Distr. Burma, Assam, Malay Peninsula.

Somewhat similar in leaf is *Hosseus*, 347 from Doi Intanon (=*E.* sp., Hosseus, ii. p. 418).

Eugenia siamensis, *Craib*, ab *E. Jambos*, Linn., foliis formae diversae tenuioribus nervis paucioribus recedit.

Suffrutex vel *arbuscula* (ex *Kerr*), omnino glaber ; ramuli graciles, cortice pallide brunneo vel rubro-brunneo obtecti. *Folia* anguste oblonga vel oblanceolata, apice acuminata, acutiuscula, basi cuneata, 8·5–13 cm. longa, 2·2–4 cm. lata, chartacea, nervis lateralibus utrinque circiter 8 rectis vel subrectis intra marginem arcuatis supra subconspicuis subtus prominentibus nervulis subtus conspicuis ; petioli circiter 8 mm. longi et 1·5 mm. crassi, supra canaliculati. *Inflorescentia* e cyma terminali 3-flora constituta ; pedicelli (infra articulationem) 3–5 mm. longi. *Receptaculum* circiter 1·2 cm. altum, parte basali pedicellum simulante 6–7 mm. alta 2–4 mm. diametro parte suprema apice 1·3 cm. diametro. *Sepala* 4, basi breviter connata, subrotundata, 7 mm. longa, circiter 1 cm. lata. *Petala* libera, ad 1·8 cm. longa. *Stamina* perplurima, 3 cm. longa. *Stylus* fere 5·5 cm. longus. *Fructus* plus minusve globosus, paullo ultra 2 cm. altus, calyce styloque persistentibus.—*Craib*, Kew Bull. 1912, p. 153.

Sriracha, Nawng Kai Ploi, in evergreen jungle, 90 m., *Kerr*, 2118.

Siamese name, Bong Kwan (ex *Kerr*).

Barringtonia acutangula, *Gaertn.*—F.B.I., ii. p. 508 ; For. Fl. Burma, i. p. 497 ; Hosseus, ii. p. 417.

Chiengmai, by a stream, 300 m., *Kerr*, 1964 ; Meh Ping Rapids, 200 m., *Hosseus*, 531, 532.

Widely distributed in S.E. Asia.

Lao Name, Mai Tun (ex *Kerr*).

The plants quoted belong to the form *pubescens* (Miers, *pro sp.*).

Barringtonia racemosa, *Roxb.*—F.B.I., ii. p. 507 ; For. Fl. Burma, i. p. 496.

Bangkok, *Schomburgk*, 211.

Distr. India, Burma, Tonkin, Cochinchina, Malaya.

By an oversight Williams, Bull. Herb. Boiss., iv. (1904) p. 1031, says that Schomburgk 211 was "not kept."

Careya arborea, *Roxb.*—For. Fl. Burma, i. p. 499 ; F.B.I., ii. p. 511 ; Hosseus, ii. p. 418.

Chiengmai, Doi Sootep, 660 m., *Kerr*, 1089.

Distr. India, Burma, Malaya.

Careya herbacea, *Roxb.*—F.B.I., ii. p. 510 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 59 ; Hosseus, ii. p. 418.

Chiengmai, Doi Sootep, 700–800 m. (ex *Hosseus*).

Distr. Bengal, Burma, Oudh.

Osbeckia chinensis, *Linn.*—F.B.I., ii. p. 515; Hosseus, ii. p. 419, in part.

Chiengmai, Doi Sootep, 360–600 m., *Kerr*, 827, 1302; Wang Djao, 100 m., *Hosseus*, 133; Pitsanulok, Ban Jang, 120 m. (ex *Hosseus*).

Distr. India, China, Burma, Malaya, N. Australia.

Hosseus, l.c. p. 419 refers his 133 to *O. chinensis*, forma.

Osbeckia crinita, *Benth.*—F.B.I., ii. p. 517; Hosseus, ii. p. 420.

Chiengmai, Doi Sootep, 1200–1700 m., *Kerr*, 879, in part, *Hosseus*, 188.

Distr. Sikkim, Bhotan, Khasia, Burma.

Osbeckia nepalensis, *Hook.*—F.B.I., ii. p. 521; Hosseus, ii. p. 420.

Chiengmai, Doi Sootep, 720–1000 m., *Kerr*, 749, *Hosseus*, 270.

Distr. Himalaya, Burma, China.

Osbeckia racemosa, *Craib*, ab affini *O. rostrata*, Don, foliis majoribus longe petiolatis inflorescentia racemosa haud paniculata differt.

Frutex usque ad 1·2 m. altus; rami tetragoni, internodiis parce adpresse setulosi, nodis setosi, cortice albido. *Folia* ovato-elliptica, lanceolato-elliptica vel elliptica, apice acuta vel vix acuminata, basi plerumque rotundata vel juniora cuneata, 13–20 cm. longa, 4·2–8·5 cm. lata, membranacea, supra distanter, subtus nervis tantum breviter setulosa, margine integro setoso-ciliato, e basi 7-nervia, nervis subtus prominentibus supra leviter impressis, nervulis utrinque, subtus magis, conspicuis; petioli sicco rubrescentes, foliorum oppositorum parum inaequales, 1–4 cm. longi, supra canaliculati, ut ramis setosi. *Racemi* terminales, ad 10 cm. longi, rhachi crassa nodosa. *Bracteae* sub anthesin deciduae, alabastra obtegentes, ovatae, apice obtusae vel subacutae, 2·2–2·3 cm. longae, 12–15 mm. latae, membranaceae, ciliatae. *Flores* 5·5 cm. diametro. *Calycis* setosi tubus 1·2 cm. longus, lobi 6 mm. longi. *Petala* obcordata, 3·3 cm. longa, 3 cm. lata, minute ciliata. *Stamina* 8; filamenta 1·5 cm. longa, glabra; antherae arcuatae, 1·5 cm. longae. *Fructus* pedicello usque ad 3·5 mm. longo suffultus, inferne ovoideus, apice in collum attenuatus, 1·3–1·6 cm. longus, 7 mm. diametro.—*Craib*, Kew Bull. 1911, p. 51.

Chiengmai, by streams in evergreen jungle on Doi Sootep, 540 m., *Kerr*, 836.

Distr. Burma; Maymyo (*Lace*, 4123).

Osbeckia stellata, *Wall.*—F.B.I., ii. p. 517.

Chiengmai, Doi Sootep, 1200–1500 m., *Kerr*, 879, in part.

Distr. Himalaya, Bengal.

Osbeckia truncata, *Don*—F.B.I., ii. p. 514; Williams, Bull. Herb. Boiss., v. (1905) p. 961. *O. chinensis*, Hosseus ii. p. 419, in part.

Wang Djao, *Hosseus*, 130; Raheng, *Lindhard*, 23.

Distr. India.

Melastoma malabathricum, *Linn.*—F.B.I., ii. p. 523 ; For. Fl. Burma, i. p. 503 ; Williams, Bull. Herb. Boiss., iv. (1904) p. 1033 ; Hosseus, ii. p. 419.

Sriracha, in scrub jungle below 15 m., *Kerr*, 2117 ; Doi Saket (ex *Hosseus*).

Distr. India, Malaya, Australia, Polynesia.

Melastoma normale, *Don*—F.B.I., ii. p. 524 ; For. Fl. Burma, i. p. 504 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 59 ; Hosseus, ii. p. 419.

Chiengmai, Doi Sootep, 300–400 m., *Hosseus*, 459, 498, *Kerr*, 1734.

Distr. W. China, India, Malaya.

Melastoma villosum, *Lodd.*—Williams, Bull. Herb. Boiss., iv. (1904) p. 1033.

Sriracha, in scrub jungle, under 15 m., *Kerr*, 2116 ; Koh Chang, *Schmidt ;* near Bangkok, *Schomburgk*, 275.

Distr. Cochinchina.

Sonerila Kerrii, *Craib et Stapf*, Kew Bull. 1910, p. 22.

Chiengmai, in open jungle on Doi Sootep, 1320–1500 m., *Kerr*, 705.

Sonerila tenera, *Royle*—F.B.I., ii. p. 530. *S. stricta*, Hook., var. *burmanica*, C. B. Clarke, F.B.I., ii. p. 530 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 59.

Chiengmai, evergreen jungle on Doi Sootep, 660–1020 m., *Kerr*, 872, 360–900 m., *Kerr*, 1495.

Distr. N.W. India, Burma, China.

Stapf (Ann. Bot., vi. p. 305) rightly reduces *S. stricta*, var. *burmanica* to *S. tenera*. The variety is in no way related to *S. stricta*, but is closely allied to *S. tenera*. Of the two gatherings *Kerr*, 1495 is typical var. *burmanica*, Clarke and 872 is intermediate between typical *S. tenera* and var. *burmanica*.

Memecylon pauciflorum, *Blume*—For. Fl. Burma, i. p. 514 ; F.B.I., ii. p. 555 ; Hosseus, ii. p. 419.

Chiengmai, Doi Sootep, 300 m., *Kerr*, 584 ; Doi Saket (ex *Hosseus*).

Distr. Bengal, Burma, Timor, Australia.

Memecylon plebejum, *Kurz*—For. Fl. Burma, i. p. 513 ; F.B.I., ii. p. 561.

Chiengmai, in evergreen jungle on Doi Sootep, 960 m., *Kerr*, 1213.

Distr. Burma.

Lythraceae.

Ammannia baccifera, *Linn.*, subsp. baccifera, f. typica, subf. contracta, *Koehne*—Koehne, Engler Pflanzenr., Lythraceae, p. 55. *A. baccifera*, Hosseus, i. p. 415 et ii. p. 471.

Siam (ex *Koehne*, Engler Bot. Jahrb., xlii. Beibl. 97, p. 53).

Distr. Africa, Asia, Australia (ex *Koehne*).

Ammannia baccifera, *Linn.*, subsp. baccifera, f. typica, subf. expansa, *Koehne*—Koehne, Engler Pflanzenr., Lythraceae, p. 55 ; Hosseus, ii. p. 416.

Chiengmai, in rice fields (ex *Hosseus*).

Distr. India, Timor, Canton (ex *Koehne*).

Rotala diversifolia, *Koehne*, Engler Bot. Jahrb., xli. p. 77 ; Hosseus, i. p. 472 et ii. p. 416.

Chiengmai, Doi Sootep, 750 m., *Hosseus*, 275.

Rotala indica, *Koehne*, var. typica, *Koehne*—Koehne, Engler Pflanzenr., Lythraceae, p. 41. *Ammannia peploides*, C. B. Clarke, F.B.I., ii. p. 566 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 60.

Chiengmai, 300 m., *Kerr*, 1647.

Distr. E. Asia.

Probably identical with the Wang Djao plant enumerated as *R. indica* by Hosseus, ii. p. 416.

Rotala leptopetala, *Koehne*, var. pentamera, *Koehne*—Koehne, Engler Pflanzenr., Lythraceae, p. 34. *Ammannia pentandra*, C. B. Clarke, F.B.I., ii. 568.

Chiengmai, 300 m., *Kerr*, 1648.

Belongs probably to the Indian form *loculpes*, Koehne.

Rotala mexicana, *Cham. et Schlech.*, var. Chamissoana, *Koehne*, f. minima, *Koehne*—Koehne, Engler Pflanzenr., Lythraceae, p. 30 ; Hosseus, i. p. 472. *R. mexicana*, Hosseus, ii. p. 416.

Siam, *Hosseus* (ex *Koehne*, Engler Bot. Jahrb., xlii. Beibl. 97, p. 53).

Distr. E. India (ex *Koehne*).

Rotala rotundifolia, *Koehne*, Engler Bot. Jahrb., i. p. 175 et Engler Pflanzenr., Lythraceae, p. 41 ; Hosseus, i. p. 472 et ii. p. 416. *Ammannia rotundifolia*, Ham.—F.B.I., ii. p. 566 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 60.

Chiengmai, Doi Sootep, 700–1050 m., *Hosseus*, 273, 491.

Distr. India, Burma, China, Formosa, Tonkin.

Pemphis acidula, *Forst.*—F.B.I., ii. p. 573 ; For. Fl. Burma, i. p. 518 ; Williams, Bull. Herb. Boiss., iv. (1904) p. 1031 ; Koehne, Engler Pflanzenr., Lythraceae, p. 185 ; Hosseus, i. p. 472.

Sriracha, *Kerr*, 2094 ; Lem Chong Pra, *Murton*, 134.

Distr. Tropical coasts of Africa, Asia and Australia.

Lagerstroemia Balansae, *Koehne*, Engler Bot. Jahrb., xxiii. Beibl. 57, p. 35 ; Koehne, Engler Pflanzenr., Lythraceae, p. 263.

Chiengmai, Doi Sootep, 300–720 m., *Kerr*, 718, 718a.

Distr. Tonkin.

Lao name, Mai Pue Kau (ex *Kerr*).

The leaves of Kerr's specimens are rather broader and less acuminate than the type specimens collected by Balansa, but the flowers appear to be identical.

Lagerstroemia calyculata, *Kurz*—F.B.I., ii. p. 576 ; For. Fl. Burma, i. p. 522 ; Koehne, Engler Pflanzenr., Lythraceae, p. 257.

Phre, 120–300 m., *Luang Vanpruk*, 198 ; ? Sriracha, Nawng Kaw, 30 m., *Kerr*, 2083.

Distr. Burma.

Lao name, Puey Pluak bang (ex *Luang Vanpruk*). Siamese name, T'Bêk (Ta baak)—ex *Kerr*.

Kerr's specimens—in fruit only—are referred doubtfully to this species.

Lagerstroemia Collettii, *Craib*, affinis *L. quinquevalvi*, Koehne, a qua calycis fructiferi tubo obconico haud patelliformi differt.

Arbor circiter 9 m. alta (ex *Kerr*). *Ramuli* ad 9 mm. diametro, minute puberuli. *Folia* ovato-lanceolata vel anguste elliptica, apice obtusa, basi acuminata, 8–14 cm. longa, 3–5 cm. lata, margine integro, rigide chartacea, supra glabra, punctata, subtus pallidiora, nervis minute velutina, nervis lateralibus utrinque circiter 9 supra conspicuis subtus prominulis; petioli 5 mm. longi, velutini. *Paniculae* terminales, 20–40 cm. longae, 12–24 cm. latae, foliis interruptae, ramis dense minute velutinis. *Alabastra* apice rotundata, apiculo brevi coronata. *Calyx* extra dense cinereo-pulverulentus; tubus 6 mm. longus; lobi 7, deltoidei, acuti, 3 mm. longi, intra vix glabri; jugi in lacinias anguste lanceolatas acutas 3–4 mm. longas producti. *Petala* oblongo-obovata, 8 mm. longa, 5 mm. lata, in unguem 1 mm. longum contracta. *Stamina* ∞, filamentis usque ad 1·7 cm. longis. *Ovarium* globosum, glabrum; stylus glaber, 1·7 cm. longus. *Calyx* fructifer obconicus, lobis deciduis. *Fructus* ellipsoideus vel fere globosus, 1 cm. saltem diametiens.—*Craib*, Kew Bull. 1911, p. 53. *L. sp.* aff. *L. piriformi*, Koehne—Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 60.

Chiengmai, in scrub jungle, 300 m., *Kerr*, 1264; Phre, 120–300 m., *Luang Vanpruk*, 181.

Distr. Burma, *Collett*, 857, *Lace*, 4192.

Lao name, Sow (ex *Luang Vanpruk*).

L. quinquevalvis is a very imperfectly known species in fruit only. *L. Collettii* is distinguished from it by the shape of its fruiting calyx and by its lobes being not glabrous on the inner surface.

Lagerstroemia Hossei, *Koehne*, Engler Bot. Jahrb., xlii. Beibl. 97, p. 50; Hosseus, i. p. 473 et ii. p. 416.

Doi Sootep, *Hosseus* (ex *Koehne*).

From the description I cannot separate this species from *L. macrocarpa*, Wall. a species which Koehne in his monograph reduces to *L. speciosa*.

Lagerstroemia intermedia, *Koehne*, var. **oblonga**, *Craib*, a typa foliis oblongis, apice truncatis vel rotundatis breviter acuminatis, nervis nervulisque supra prominulis, reticulatione haud tam tenui, alabastris floribusque paullo majoribus recedit.—*Craib*, Kew Bull. 1911, p. 53.

Chiengmai, in eng jungle, 300 m., *Kerr*, 578.

To this probably also belongs *Luang Vanpruk*, 200 from Phre for which the Lao name Puey is given.

Lagerstroemia Loudoni, *Teysm. et Binn.*—For. Fl. Burma, i. p. 523; Koehne, Engler Pflanzenr., Lythraceae, p. 264. *L. tomentosa*, var. *Loudoni*, F.B.I., ii. p. 578.

Siam, *Teysmann;* Paknampo, *Witt*, 14.

Lagerstroemia macrocarpa, *Wall.*—For. Fl. Burma, i. p. 524; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 59. *L. speciosa*, Koehne, Engler Pflanzenr., Lythraceae, p. 261, in part. *L. Hossei*, Koehne ?

Korat, 90 m., *Witt*, 34; Phre, 250–400 m., *Luang Vanpruk*, 186, 189.

Distr. Burma.

Siamese name, Mai Intanin (ex *Witt*).

Lagerstroemia tomentosa, *Presl.*—F.B.I., ii. p. 578, *excl. var.*; For. Fl. Burma, i. p. 522; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 60; Koehne, Engler Pflanzenr., Lythraceae, p. 264; Hosseus i. p. 474 et ii. p. 416 (latter in part only).

Raheng, *Witt*, 19, 20; Muang Fang (ex *Hosseus*).

var. **caudata**, *Koehne*, Engler Bot. Jahrb., xlii. Beibl. 97, p. 51; Hosseus, i. p. 475.

Chiengmai, Doi Sootep, 980 m., *Hosseus*, 512; Muang Fang, 1000–1600 m., *Hosseus*, 600.

Distr. Burma (type).

Lagerstroemia turbinata, *Koehne*, Engler Bot. Jahrb., iv. p. 34; Koehne, Engler Pflanzenr., Lythraceae, p. 266; Hosseus, i. p. 475 et ii. p. 416. *L. floribunda*, Jack—F.B.I., ii. p. 577, in part; For. Fl. Burma, i. p. 522, in part; Williams, Bull. Herb. Boiss., iv. (1904) p. 1031 et Hosseus, i. p. 473, at least in part.

Menam, Seesa Ghat, *Hosseus*, 4; Meh Ping, Kampeng, in mixed jungle, *Kerr*, 2034; Anhin, *Schomburgk*, 240.

Distr. China, Burma, Cochinchina, Malay Peninsula.

Lagerstroemia undulata, *Koehne*, Engler Bot. Jahrb., xlii. Beibl. 97, p. 52; Hosseus, i. p. 475 et ii. p. 416.

Meh Ping Rapids, 200 m., *Hosseus*, 530.

Lagerstroemia villosa, *Wall.*—For. Fl. Burma, i. p. 524; F.B.I., ii. p. 578; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 59; Koehne, Engler Pflanzenr., Lythraceae, p. 269. *L. tomentosa*, Hosseus, ii. p. 416, in part, *non* Presl.

Chiengmai, Doi Sootep, 300 m., *Kerr*, 1150; Muang Fang, 100 m., *Hosseus*, 616; Meh Ping, Muang Hawt, 240 m., *Kerr*, 2016.

Distr. Burma.

Lao name, Mai Sau (ex *Kerr*).

Duabanga sonneratioides, *Ham.*—F.B.I., ii. p. 579; For. Fl. Burma, i. p. 525.

Muang Prow, Meh Kaut, 450 m., *Kerr*, 1032; Phre, 156–240 m., *Luang Vanpruk*, 124.

Distr. India, Burma, Assam, Yunnan, Tonkin.

Lao name, Tohng Teng (ex *Kerr*).

Onagraceae.

Jussieua repens, *Linn.*—F.B.I., ii. p. 587; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 60; Hosseus, ii. p. 420.

Chiengmai moat, 300 m., *Kerr*, 1910—"leaves edible"; Paknampo, *Hosseus*, 6.

Distr. Tropics.

Lao name, Puk Pawt (ex *Kerr*).

Jussieua suffruticosa, *Linn.*—F.B.I., ii. p. 587 ; Williams, Bull. Herb. Boiss., iv. (1904) p. 1033.
Chiengmai, edge of paddy fields, 300 m., *Kerr*, 802.
Distr. Tropics.

Ludwigia parviflora, *Roxb.*—F.B.I., ii. p. 588 ; Hosseus, ii. p. 420.
Paknampo, *Hosseus*, 7.
Distr. S.E. Asia, Trop. Africa.

Ludwigia prostrata, *Roxb.*—F.B.I., ii. p. 588.
Chiengmai, edge of paddy fields, 300 m., *Kerr*, 804.
Distr. Tropical Asia and Africa.

Samydaceae.

Casearia flexuosa, *Craib*, affinis *C. Lobbianae*, Turcz., a qua foliis serratis basi attenuatis, stipulis persistentibus, stylo longiore haud glabro, fructu ellipsoideo recedit.
Fruticulus 1·2 m. altus, ramis albescentibus puberulis, ramulis angulatis mox teretibus 1·5–2 mm. diametro flexuosis dense puberulis. *Folia* oblanceolata vel oblongo-lanceolata, apice acuminata, mucronata, basi attenuata, 3·5–13 cm. longa, 1·2–3·5 cm. lata, membranacea vel subchartacea, sparse puberula, margine serrato leviter recurvo, nervis lateralibus utrinque circiter 5 cum nervulis utrinque conspicuis ; petioli usque ad 7 mm. longi ; stipulae persistentes, rigidae, 2 mm. longae, 0·5 mm. latae. *Glomeruli* axillares ; pedicelli breves, glabri. *Sepala* 5, basi breviter connata, subaequalia, 3 mm. longa, fere 2 mm. lata, apice obtusa, fere glabra, margine ciliato. *Stamina* 10, staminodia 10 paullo superantia ; filamenta staminodiis villosis basi adnata, villosa. *Pistillum* 1·5 mm. altum ; ovarium stylo subaequilongum, glabrum, stylo inferne pubescente. *Fructus* pedicello 3 mm. longo suffultus, ellipsoideus, glaber, circiter 1 cm. altus, 8 mm. diametro ; semina albida, nitentia, 6 mm. longa.—*Craib*, Kew Bull. 1911, p. 54.
Chiengmai, in an overgrown old clearing on Doi Sootep, 720 m., *Kerr*, 694.

Casearia glomerata, *Roxb.* ?—F.B.I., ii. p. 591.
Chiengmai, in dry mixed jungle on Doi Sootep, 660 m., *Kerr*, 1757.
Distr. Sikkim, Bhotan, Khasia, S. China.

Casearia grewiaefolia, *Vent.* ?—F.B.I., ii. p. 594.
Phre, 120–180 m., *Luang Vanpruk*, 150.
Distr. Cambodia, Malaya.

Casearia Kerrii, *Craib*, a *C. tomentosa*, Roxb., cui affinis, foliis multo majoribus apice rotundatis vel obtusis interdum emarginatis, staminibus longioribus, antheris duplo majoribus, ovario superne villoso, fructu multo majore recedit.
Arbor, ramulis teretibus juventute dense velutino-tomentosis cortice rubro-brunneo striato parce lenticellato obtectis. *Folia* obovata, obovato-elliptica vel oblonga, apice rotundata vel obtusa, interdum emarginata, basi inaequalia, juventute attenuata, mox rotundata vel truncata, 8–16·5 cm. longa, 4–8·5 cm. lata, subcoriacea, supra minute puberula nisi costa tomentosa, subtus costa nervisque primariis tomentosa, margine sub anthesin subintegra, fructu distincte crenato-serrata, nervis lateralibus utrinque 9–11 subtus

prominentibus, supra cum nervulis prominulis ; petioli ad 1 cm. longi. *Glomeruli* axillares, pluriflori ; pedicelli 3–5 mm. longi, tomentelli. *Sepala* 5, basi breviter connata, subaequalia, 3–4 mm. longa, 2·5–3 mm. lata, apice obtusa, extra tomentella, margine membranaceo ciliata. *Filamenta* 2·5 mm. longa, glabra nisi basi intra puberula, staminodiis 1·5 mm. longis basi brevissime adnata. *Ovarium* 1 mm. altum, superne villosum ; stylus 2 mm. longus, inferne ut ovario villosus, stigmate capitato. *Fructus* ellipsoideus, 4 cm. longus, ± 2 cm. diametro, glaber, pedicello crasso 8 mm. longo suffultus.—*Craib*, Kew Bull. 1911, p. 55.

Chiengmai, in deciduous (eng) jungle, 300 m., *Kerr*, 580.

Lao name, Ki Sua Luang (ex *Kerr*).

Homalium minutiflorum, *Kurz*, For. Fl. Burma, i. p. 532 ; F.B.I., ii. p. 596.

Chiengmai, Doi Sootep, 660 m., *Kerr*, 1138.

Distr. Burma.

Passifloraceae.

Passiflora lunata, *Willd.*

Bangkok, *Zimmermann*, 53.

Native of Trop. America.

Passiflora siamica, *Craib*, affinis *P. hainanensi*, Hance, sed caulibus haud glabris valde diversa.

Herba scandens ; ramuli ad 2·5 mm. diametro, pubescentes, striati. *Folia* lanceolata vel ovato-lanceolata, apice acutiuscula, mucronata, basi rotundata, 5·2–14·5 cm. longa, 1·5–5·5 cm. lata, supra pilis basi incrassatis fere hispida, subtus, nervis praecipue, molliter pubescentia et praeterea matura glandis 10–14 in lineas duas costae parallelas et ab ea circiter 1 cm. utrinque distantes dispositis, chartacea, margine integro, nervis lateralibus utrinque circiter 5 intra marginem arcuatis cum nervis transversis supra conspicuis subtus prominulis. *Petioli* ad 1·5 cm. longi, ut rhachi pubescentes, basin versus glandis duobus sessilibus instructi. *Cirrhi* plus minusve 15 cm. longi, unilateraliter pilosi, cum inflorescentia axillari orti. *Bracteae* lineares, acutae, ad 1·5 cm. longae, 2·5 mm. latae, puberulae. *Sepala* 5, basi breviter connata, oblonga, obtusa, 1·5 cm. longa, 6 mm. lata, extra puberula. *Petala* 5, alba, sepalis conformia sed paullo minora et glabra. *Corona* duplex, exterior fimbriata, ad 8 mm. alta, interior dentata, plicata, quam exterior dimidio brevior. *Filamenta* 16 mm. longa, ad medium connata, ovarium includentia, glabra ; antherae 4 mm. longae. *Ovarium* 2·5 mm. altum, hirsutum, gynophorio circiter 4 mm. longo filamentis adnato ; styli 4–5 liberi, filamentis subaequales, cum petalis filamentisque sicco sparse brunneo-picti. *Fructus* globosus, 1·5–2 cm. diametro ; semina 5 mm. longa, nigra, foveolata. —*Craib*, Kew Bull. 1911, p. 55.

Chiengmai, Doi Sootep, 660 m., *Kerr*, 1049a ; Chieng Dao, 450–840 m., *Kerr*, 1049, 1256.

Modecca pinnatisecta, *Craib*, a *M. apiculata*, Masters, cui affinis, foliis pinnatim 5–sectis, glandis subtus aliter dispositis, antherarum cauda longiore, praecipue differt.

Herba scandens, omnino glabra. *Ramuli* cinereo-albi, sulcati, ad 1 mm. diametro. *Folia* 11–19 cm. longa, 14–24 cm. lata, pinnatim 5-secta, segmentis lanceolatis vel anguste lanceolatis apice acutis breviter mucronatis 9–15 cm. longis 1–2 cm. latis, membranacea, margine integro, nervis lateralibus utrinque 2, nervulis plerumque patulis intra marginem distincte arcuatis, omnibus utrinque conspicuis, pagina superiore basi glandis 2 instructa, subtus glandulis 4 sinus adversus medio intra marginem et rhachin ornata ; petioli 2·3–4·5 cm. longi. *Pedunculi* axillares, 6–10 cm. longi, in cirrhos producti ; pedicelli graciles, ad 1 cm. longi. ♂ : *Calycis* tubus plus minusve 3 mm. longus, lobi 5, lanceolati, apice acutiusculi, 1·1 cm. longi, 2 mm. lati, 7–9-nervati ; loborum basi iisque oppositae glandae oblongae, majusculae, carnosae, apice recurvae. *Petala* 5, oblanceolata, 8·5 mm. longa, 2 mm. lata, margine fimbriato, 3-nervata. *Stamina* libera, petalis isomera ; filamenta basi leviter dilatata, 2·5 mm. longa ; antherae 3 mm. longae, cauda 3·5 mm. longa. *Ovarii* rudimentum 1 mm. altum. ♀ : *Calycis* tubus, lobi, et glandae maris sed paullo minores. *Petala* maris, nisi tantum 2·5 mm. longa, 0·5 mm. lata. *Staminodia* parva. *Ovarium* gynophorio 2 mm. longo suffultum, 4 mm. altum, 1·5 mm. diametro ; stylus circiter 1 mm. longus, ramis 3 bifidis. *Fructus* gynophorio 7 mm. longo suffultus, 5 cm. longus, exocarpio tenui rubro-brunneo.—*Craib*, Kew Bull. 1911, p. 56.

Chiengmai, Doi Sootep, 720 m., *Kerr*, 751.

Distr. Burma (v.s. in Hb. Lace).

Carica Papaya, *Linn.*—F.B.I., ii. p. 599, *in nota* ; For. Fl. Burma, i. p. 533.

Bangkok, *Zimmermann*, 134.

Cultivated throughout India.

Cucurbitaceae.

Trichosanthes cucumerina, *Linn.*—F.B.I., ii. p. 609.

Chiengmai, a common weed, 300 m., *Kerr*, 714.

Distr. India, Malaya, N. Australia.

Trichosanthes multiloba, *Miq.*—F.B.I., ii. p. 607.

Chiengmai, Doi Sootep, 720 m., *Kerr*, 653.

Distr. Sikkim, Khasia, Burma.

Trichosanthes palmata, *Roxb.*—F.B.I., ii. p. 606 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 61.

Chiengmai, 300 m., *Kerr*, 1266.

Distr. India, Burma, Malaya, Australia.

Luffa aegyptiaca, *Mill.*—F.B.I., ii. p. 614 ; Williams, Bull. Herb. Boiss., v. (1905) p. 956.

Chiengmai, 330 m., *Kerr*, 1661.

Distr. Tropics.

Gymnopetalum cochinchinense, *Kurz*—F.B.I., ii. p. 611.

Chiengmai, 300 m., *Kerr*, 1337—"a garden weed."

Distr. Sikkim, Bengal, Assam, China, Malaya.

Momordica macrophylla, *Gage*, Rec. Bot. Surv. Ind., iii. p. 61.
Chiengmai, in scrub jungle, 300 m., *Kerr*, 1263.
Distr. Burma.
Kerr's plant (♂) agrees with Lace's 3287 (♀) from Maymyo which was named *M. macrophylla* in Herb. Calc.

Thladiantha Hookeri, *C. B. Clarke*, F.B.I., ii. p. 631.
Chiengmai, in evergreen jungle on Doi Sootep, 720 m., *Kerr*, 662.
Distr. Assam.

Zehneria umbellata, *Thwaites*—F.B.I., ii. p. 625 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 61.
Chiengmai, Doi Sootep, 300 m., *Kerr*, 1130, 1130a ; Sriracha, Nawng Kaw, in evergreen jungle, 30 m., *Kerr*, 2084.
Distr. Afghanistan, India, Burma, Assam, Tonkin, Java.

Begoniaceae.

Begonia (§ **Casparya**) **Acetosella**, *Craib*, a *B. Roxburghii*, DC., foliis angustioribus basi oblique truncatis vel cordato-truncatis nunquam alte cordatis recedit.

Herba circiter bimetralis (ex *Kerr*) ; caules glabri vel juventute subglabri, primo flexuosi, striati, basi ad 8 mm. diametro. *Folia* alterna, lanceolata vel oblongo-lanceolata, apice acuminata, acuta, basi oblique truncata vel cordato-truncata, 13–27 cm. longa, 3–8·5 cm. lata, membranacea, supra parcissime setulosa, subtus costa nervisque setulosa, margine setoso-serrulata, e basi circiter 5–nervata, nervis secundariis (e costa ortis) utrinque ad 7 pagina utraque sicco prominulis, nervis transversis satis distantibus utrinque conspicuis ; petioli 1–12 cm. longi, glabrescentes ; stipulae brunneae, lanceolatae, acutae, 1–1·3 cm. longae, 3·5 mm. latae, deciduae. *Flos* ♂ pedicello ad 1·4 cm. longo ut pedicello ♀ bibracteato suffultus. *Sepala* 2, obovato-elliptica, 1·4 cm. longa, 1·2 cm. lata. *Petala* 2, oblongo-oblanceolata, circiter 1·3 cm. longa et 0·5 cm. lata. *Stamina* perplurima, filamentis liberis, connectivo manifeste producto. *Flores* ♀ axillares, solitarii, pedicellis 0·5–1 cm. longis bracteolis majusculis stipulis conformibus paullo supra basin instructis suffulti. *Sepala* petalaque maris sed minora.—*Craib*, Kew Bull. 1912, p. 153. *B.* sp. n., Craib, Kew Bull. 1911, p. 58.
Chiengmai, in damp shady spots by stream on Doi Sootep, 660–900 m., *Kerr*, 557, 1744.

Begonia incerta, *Craib*, ex affinitate *B. Kerrii*, Craib, sed floribus majoribus, ovario capsulaque haud glabris differt.

Herba subacaulis, 4–9 cm. alta. *Folia* solitaria vel gemina, orbicularia, apice obtusa, basi cordata, ad 2·5 cm. diametro, membranacea, utrinque brevissime, subtus parcius, pilosa, margine subintegro ; petioli 1–1·5 cm. longi, supra canaliculati, ut folii pilosi. *Pedunculi* simplices, ad 6·5 cm. longi, breviter pilosi. ♂ : *Sepala* 2, alba, rotundata, 7·5 mm. longa, 7 mm. lata, extra parce minute pilosa, margine ciliolata. *Petala* 2, alba, lineari-oblonga, 5 mm. longa, 1·5 mm. lata, glabra. *Filamenta* 2 mm. longa, ad medium com[illegible] antheris parvis oblongis, connectivo haud producto.

♀ : *Perianthii* segmenta 5, alba, inaequalia, usque ad 5 mm. longa et 4 mm. lata. *Styli* 3, e basi liberi, stigmatorum ramulis 2. *Capsula* vix matura, brevissime pilosa, 8 mm. alta, 6 mm. lata, loculis 3 (?).—*Craib*, Kew Bull. 1911, p. 57.

Meh Ping Rapids, banks of river on limestone 180 m., *Kerr*, 508.

Begonia integrifolia, *Dalz.*—F.B.I., ii. p. 648.
Chiengmai, Doi Sootep, 720 m., *Kerr*, 730.
Distr. Western Ghauts, Burma.

Begonia Kerrii, *Craib*, affinis *B. parvuliflorae*, DC., a qua capsulae ala maxima breviore apice rotundata haud attenuata differt.

Herba acaulis, unifoliata, 4–11 cm. alta. *Folia* suborbicularia vel elliptica, apice obtusa, basi cordata, 3–7 cm. longa, 2·7–6 cm. lata, utrinque, nervis subtus densius, brevissime parcissimeque pilosa, membranacea, margine irregulariter dentata, dentibus minute denticulatis, ciliata, nervis e basi 7 utrinque conspicuis ; petioli 1·5–5·5 cm. longi, breviter pilosi. *Pedunculus* solitarius, gracilis, ad 7·5 cm. longus, saepissime simplex, interdum fere e basi furcatus, vix glaber. ♂ : *Sepala* 2, subrotundata, 7 mm. longa, 6 mm. lata, extra parce pilosa. *Petala* 2, oblanceolata, 7 mm. longa, circiter 2 mm. lata. *Filamenta* paullo ultra medium connata ; antherae obovatae, connectivo haud producto. ♀ : *Perianthii* segmenta inaequalia, ad 6 mm. longa, 5 mm. lata. *Styli* 3, e basi liberi, apice brevissime bifidi. *Capsula* glabra, alis membranaceis valde inaequalibus nervis horizontalibus, 7 mm. alta, fere 1 cm. lata, 3-locularis, placentis bifidis.—*Craib*, Kew Bull. 1911, p. 57.

Ban Kaw, on damp limestone, *Kerr*, 508a.

Begonia martabanica, *DC.*—F.B.I., ii. p. 651.
Chiengmai, in evergreen jungle on Doi Sootep, 600 m., *Kerr*, 1969.
Distr. Moulmein.

Begonia Mouhotiana, *Hosseus*, ii. p. 415.
Chiengmai, Doi Sootep, 1050 m. (ex *Hosseus*).

Begonia sootepensis, *Craib*, habitu *B. yunnanensi*, Levl., similis sed altior, caule vix glabro, foliis crassioribus supra setulosis.

Herba erecta, ad 43 cm. alta ; caulis ruber, rigidiusculus, teres, sulcatus, ad 5 mm. diametro, glabrescens, nodis basi praecipue incrassatis. *Folia* oblique lanceolata, apice attenuata, basi valde oblique cordata, 3·5–7 cm. longa, 1·5–3 cm. lata, membranacea vel subchartacea, supra breviter setulosa, subtus glabra nisi nervis pilis brevibus parce instructis, margine serrata vel dentata, e basi 3–5-nervia, nervis cum nervulis supra subobscuris subtus prominulis ; petioli ad 6·5 cm. longi, glabri ; stipulae subdeciduae, oblique lanceolatae, apice attenuatae, circiter 1 cm. longae, 3 mm. latae, margine fimbriato, nervis conspicuis. *Racemi* vel solitarii terminales tantum vel ramulos breves axillares quoque terminantes ; pedicelli ad 7 mm. longi, graciles, medio bracteolis duobus parvis deciduis scariosis ornati. ♂ : *Sepala* 2, late elliptica vel subrotundata, apice obtusa, ad 5·5 mm. longa et 4 mm. lata. *Petala* 2, late lanceolata, 2·5 mm. longa, 1 mm. lata. *Filamenta* brevia, basi connata,

connectivo in appendicem triangularem membranaceam producto. ♀ : *Perianthii* segmenta 5, exteriora late elliptica vel subrotundata, ad 6 mm. longa, 4·5 mm. lata, interiora late lanceolata, 5 mm. longa, 2 mm. lata, omnia mucronata. *Styli* 3, breviter connati, stigmatibus 3 lunatis. *Capsula* immatura, 9 mm. alta, 11 mm. lata, alis chartaceis valde inaequalibus, loculis 3, placentis bifidis.—*Craib*, Kew Bull. 1911, p. 58.

Chiengmai, in crevices on damp rocks on Doi Sootep, 1350 m., *Kerr*, 785.

After examination of additional material (*Kerr*, 1420) the writer is disposed to regard *B. sootepensis* as a variety of *B. yunnanensis*.

Umbelliferae.

Hydrocotyle asiatica, *Linn.*—F.B.I., ii. p. 669 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 61 ; Williams, Bull. Herb. Boiss., iv. (1904) p. 1034.

Chiengmai, 300 m., *Kerr*, 1670—"a garden weed."

Distr. Tropics.

Hydrocotyle javanica, *Thunb.*—F.B.I., ii. p. 667 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 61.

Chiengmai, Doi Sootep, 900 m., *Kerr*, 1258.

Distr. Tropics.

Hydrocotyle siamica, *Craib*, ab affini *H. Hookeri* (C. B. Clarke, pro var.), pedicellis multo longioribus facile distinguenda.

Herba repens, ad nodos interdum radicans. *Folia* pentagona, vix vel fere ad medium lobata, ad 9 cm. longa et 10 cm. lata, utrinque parcissime setulosa et praeterea nervis subtus puberula, e basi 7–9-nervia, nervis supra conspicuis subtus prominulis ; petioli ad 15 cm. longi. *Umbellae* axillares, solitariae, pedunculo ad 10·5 cm. longo brunneo-puberulo suffultae. *Pedicelli* ad 8 mm. longi, glabri vel pilis perpaucis rigidiusculis deciduis instructi, basi conspicue bracteati. *Calycis* dentes deficientes. *Petala* subviridia, oblonga, apice acuta, incurva, 1 mm. longa, vix 0·5 mm. lata, glabra. *Antherae* oblongae, filamentis circiter 1 mm. longis dorso affixae. *Styli* persistentes, ad 1·5 mm. longi. *Fructus* a latere compressus, 1·5 mm. altus, 2 mm. latus, jugis exceptis pilis albis brevibus obtusis rigidis instructus.—*Craib*, Kew Bull. 1911, p. 58. *H. javanica*, Thunb., var. *siamica*, Hosseus, ii. p. 420.

Chiengmai, Doi Sootep, 1200–1650 m., *Kerr*, 670, *Hosseus*, 192.

For uniformity with the Flora of British India the Siam plant might have been treated as a variety of *H. javanica* but in the writer's opinion the variety *Hookeri*, C. B. Clarke, of *H. javanica* should be raised to specific rank as should also the variety *chinensis*, Dunn, of the same species. These three species *H. chinensis*, *H. Hookeri*, and *H. siamica*, form a very natural group distinguished from *H. javanica* by their solitary generally long peduncled umbels.

Eryngium foetidum, *Linn.*—Hosseus, ii. p. 420.

Chiengmai, Doi Sootep, 720 m., *Kerr*, 738.

Distr. Burma, Assam, Trop. Africa and America.

Dr. Kerr remarks that the leaves, which are strongly aromatic, are eaten with curries.

Oenanthe stolonifera, *Wall.*—F.B.I., ii. p. 696 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 62 ; Hosseus, ii. p. 421.
Chiengmai, Doi Sootep, 1050 m. (ex *Hosseus*).
Distr. N. India, Assam, China, Japan.

Seseli siamicum, *Craib*, ex affinitate *S. yunnanensis*, Franch., sed foliis sine articulis, radiis paullo longioribus, involucelli bracteis liberis, pedicellis longioribus, calycis dentibus minutis differt.
Herba erecta, 5 dm.–1 m. alta, glaberrima ; radix fusiformis, apice foliorum vestigiis vestita : caules solitarii vel gemini, superne ramosi, ad 3 mm. diametro, rigidi, striati. *Folia* basilaria et inferiora 6–11 cm. longa, 8–15 cm. lata, decomposita, segmentis ultimis linearibus ad 4 cm. longis 1·5 mm. latis, petiolis ad 15 cm. longis caules amplectantibus, media et superiora bipinnata, trifoliata tantum vel ad vaginas reducta. *Pedunculi* ad 10·5 cm. longi. *Involucrum* nullum vel monophyllum ad 1 cm. longum, margine membranaceo ; radii 4–8, subaequales, 3–4·3 cm. longi. *Involucelli* bracteae lanceolatae, quam pedicelli dimidio breviores, liberae. *Pedicelli* ad 7 mm. longi. *Calycis* dentes minuti. *Petala* alba, acumine inflexo. *Styli* perbreves. *Fructus* ovoideus, 3 mm. longus, 1·5 mm. diametro.—*Craib*, Kew Bull. 1911, p. 59 ; Hosseus, ii. p. 421.
Chiengmai, in eng jungle on Doi Sootep, 300–750 m. *Kerr*, 774.

Araliaceae.

Heptapleurum venulosum, *Seem.*, var. **macrophylla**, *C. B. Clarke*, F.B.I., ii. p. 730. *H. venulosum*, Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 62.
Chiengmai, Doi Sootep, 300–450 m., *Kerr*, 555 ; Hooey Kia, 180 m., *Luang Vanpruk*, 230—" epiphytic on *Lagerstroemia*."
Distr. (of var.). Burma.
Lao name, Mai Gin Pet (ex *Kerr*).

Brassaiopsis speciosa, *Dene. et Planch.*—F.B.I., ii. p. 737.
Chiengmai, in evergreen jungle on Doi Sootep, 660 m., *Kerr*, 1170.
Distr. Himalaya, Assam, Yunnan, Java.

Tupidanthus calyptratus, *Hook. f. et Th.*—F.B.I., ii. p. 740 ; For. Fl. Burma, i. p. 542 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 63.
Chiengmai, in mixed jungle on Doi Sootep, 750 m., *Kerr*, 1796.
Distr. Upper Burma, Khasia, Yunnan.

Alangiaceae.

Alangium begoniifolium, *Baill.*—Wang., Engler Pflanzenr., Alang., p. 20. *Marlea begoniaefolia*, Roxb.—F.B.I., ii. p. 743 ; For. Fl. Burma, i. p. 544 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 63.
Chiengmai, Doi Sootep, 900 m., *Kerr*, 1121.
Distr. India, China, Japan, Malaya.

Alangium Kurzii, *Craib*, Kew Bull. 1911, p. 60, nom. nov. *Marlea tomentosa*, Kurz, For. Fl. Burma, i. p. 545, *non* Endl.
Chiengmai, Doi Sootep, 660 m., *Kerr*, 1172.
Distr. Burma (in Herb. Calc.).

Wangerin, in his monograph of the *Alangiaceae* in Engler's Pflanzenreich, quotes Kurz, For. Fl. Burma, for the true *Marlea tomentosa*, Endl. The description given by Kurz does not, however, agree with the Java specimens, *e.g.*, in the size of the flower and in the indumentum of the under surface of the leaf. On the other hand, Kurz's description applies very well to the plant quoted above, which is, in the writer's opinion, the *M. tomentosa*, Kurz *non* Endl. It may be noted that no Burmese specimen is quoted as having been seen by Wangerin.

Alangium salviifolium, *Wang.*, sub-sp. **hexapetalum**, *Wang.*, Engler Pflanzenr., Alang., p. 9 : Hosseus, ii. p. 421. *A. Lamarckii*, Thwaites—F.B.I., ii. p. 741.

Ban Meh Chang, 300 m., *Kerr*, 979 ; Chiengmai, 300 m., *Hosseus*, 440.

Distr. India, Andamans, Malaya, Philippines, Comoro Is.

Lao name, Mai Poo (ex *Kerr*).

GAMOPETALAE.

Caprifoliaceae.

Viburnum atro-cyaneum, *C. B. Clarke*, F.B.I., iii. p. 7 ; Hosseus, ii. p. 446.

Doi Chieng Dao, 2180 m., *Hosseus*, 392 (Herb. Kew ! et Copenhagen !).

Distr. Mishmi, Manipur.

Viburnum cylindraceum, *Ham.* *V. coriaceum*, Blume—F.B.I., iii. p. 5.

Chiengmai, Doi Sootep, in evergreen jungle, 1500 m., *Kerr*, 1389.

Distr. Himalayas, Burma, Assam, Yunnan, Java.

Viburnum inopinatum, *Craib*, a *V. sambucino*, Reinw., foliis subtus molliter pubescentibus, calycis dentibus minoribus, corolla parum majore, filamentis antherisque longioribus recedit.

Frutex vel arbuscula (ex *Kerr*) ; ramuli primo densius breviter albo-pubescentes, plus minusve glabrescentes, cortice rubro-brunneo parce lenticellato obtecti. *Folia* late oblanceolata, oblongo-oblanceolata vel ovato-elliptica, apice acuminata, acutiuscula, basi cuneata, 9–19 cm. longa, 3·6–7·3 cm. lata, chartacea, supra glabra, subtus molliter pubescentia, nervis lateralibus utrinque 5–7 supra cum nervis transversis leviter impressis subtus prominentibus intra marginem arcuatis ; petioli 0·7–4 cm. longi, supra sulcati. *Corymbae* terminales, umbelliformes, 9·5–13 cm. diametro ; pedunculi 7, 3–4·5 cm. longi. *Calycis* dentes minuti. *Corollae* albae tubus 1·5 mm. longus, lobi 1·25 mm. longi, vix 1·5 mm. lati. *Filamenta* 5–6·5 mm. longa, glabra, antheris 1 mm. altis.—*Craib*, Kew Bull. 1911, p. 385. *V. sambucinum*, Hosseus, ii. p. 446, *vix* Reinw.

Chiengmai, in evergreen jungle on Doi Sootep, 600–900 m., *Kerr*, 932, 932a ; on old clearing on Doi Sootep, 720 m., *Kerr*, 1726 ; Doi Sootep, 1200 m., *Hosseus*, 250.

Lao name, Dauk oon (ex *Kerr*).

Lonicera Hildebrandiana, *Coll. et Hemsl.*, Journ. Linn. Soc., xxviii. p. 64.
Chiengmai, among rocks on Doi Sootep, 1380 m., *Kerr*, 598.
Distr. Upper Burma.

Sambucus javanica, *Reinw. ex Blume*—F.B.I., iii. p. 2. *S. Thunbergiana*, Blume—For. Fl. Burma, ii. p. 3.
Chiengmai, Ban Pong, 330 m., "flowers white, scented; ripe fruit black; growing by a stream to a height of about 6 ft.," *Kerr*, 1947.
Distr. S.E. Asia.
This is *S. javanica* only in sensu lato and may be referable rather to *S. chinensis*, Lindl., if the two species are really distinct.

Rubiaceae.

Anthocephalus indicus, *A. Rich.*—Haviland, Journ. Linn. Soc., xxxiii. p. 23. *A. Cadamba*, Miq.—F.B.I., iii. p. 23. *Sarcocephalus Cadamba*, Kurz, For. Fl. Burma, ii. p. 63.
Chiengmai, edge of clearing on Doi Sootep, 660 m., *Kerr*, 1215.
Distr. India, Assam, Tonkin, Malaya.
Lao name, Mai Toom (ex *Kerr*).

Adina polycephala, *Benth.*—F.B.I., iii. p. 25; Haviland, Journ. Linn. Soc., xxxiii. p. 46. *Nauclea polycephala*, Wall.—For. Fl. Burma, ii. p. 65.
Chiengmai, by stream on Doi Sootep, 660–750 m., *Kerr*, 1065, 1764.
Distr. India, Burma, Cambodia, Cochinchina, Malaya.

Mitragyna diversifolia, *Haviland*, Journ. Linn. Soc., xxxiii. p. 71. *Stephegyne diversifolia*, Hook. f., F.B.I., iii. p. 26; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 64. *Nauclea parvifolia*, Roxb., var. *diversifolia*, Kurz, For. Fl. Burma, ii. p. 67.
Phre, 156-240 m., *Luang Vanpruk*, 129; Meh Ping, Kampeng, *Kerr*, 2033.
Distr. Chittagong, Burma, Philippines.

Mitragyna diversifolia, *Haviland*, var. **microphylla**, *Craib*. *Nauclea parvifolia*, var. *microphylla*, Kurz—For. Fl. Burma, ii. p. 67.
Chiengmai, by marshy ground in scrub jungle, 300 m., *Kerr*, 1966.
Distr. (of var.). Burma.

Mitragyna hirsuta, *Haviland*, Journ. Linn. Soc., xxxiii. p. 72.
Chiengmai, Doi Sootep, deciduous jungle, 300–450 m., *Kerr*, 661.
Distr. Cochinchina.

Uncaria laevigata, *Hook. f.*, F.B.I., iii. p. 30; Haviland, Journ. Linn. Soc., xxxiii. p. 90.
Chiengmai, Doi Sootep, 900 m., *Hosseus*, 317.
Distr. Khasia, Manipur, Tenasserim.

Uncaria macrophylla, *Wall.*—F.B.I., iii. p. 32; For. Fl. Burma, ii. p. 70; Haviland, Journ. Linn. Soc., xxxiii. p. 84.
Chiengmai, Doi Sootep, 720 m., *Kerr*, 692.
Distr. Bhutan, Khasia, Cachar, Manipur, Yunnan.

Nauclea sp. near *N. purpurascens*, Korth. *N. purpurea*, K. Sch., Bot. Tidsskr., xxiv. p. 331 ; Williams, Bull. Herb. Boiss., v. (1905) p. 951, *vix* Roxb.

Klong Son, *Schmidt*, 680 (in bud only !).

Hymenopogon parasiticus, *Wall.*—F.B.I., iii. p. 34 ; For. Fl. Burma, ii. p. 73.

Chiengmai, Doi Sootep, evergreen jungle, 1440 m., *Kerr*, 1392.

Distr. Himalayas, Burma, Assam, China.

Wendlandia glabrata, *DC.*—F.B.I., iii. p. 39 ; For. Fl. Burma, ii. p. 74 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 65 ; Hosseus, ii. p. 445.

Chiengmai, Doi Sootep, in deciduous jungle, 300 900 m., *Kerr*, 963 ; ? Phre, 156–240 m., *Luang Vanpruk*, 112 (in young bud only).

Distr. Mysore, Burma, China, Tonkin.

Wendlandia glabrata, *DC.*, var. **floribunda**, *Craib*, a typa floribus congestis, alabastris apice pilosis, corollae tubo graciliore recedit.—*Craib*, Kew Bull. 1911, p. 386.

Chiengmai, Doi Sootep, in open jungle, 1440 m., *Kerr*, 1674.

The species comprising the genus *Wendlandia* are very closely allied, and probably the plant here described as a variety may eventually have to be raised to specific rank.

Wendlandia paniculata, *DC.*—F.B.I., iii. p. 39.

Chiengmai, Doi Sootep, in mixed jungle, 660 m., *Kerr*, 1710, 1715.

Distr. Yunnan, Indo-China, Malaya.

Wendlandia tinctoria, *DC.*—F.B.I., iii. p. 38 ; For. Fl. Burma, ii. p. 74 ; Hosseus, ii. p. 445.

Doi Chieng Dao, 400 m., *Hosseus*, 472.

Distr. N. India, Burma, Yunnan.

Dentella repens, *Forst.*—F.B.I., iii. p. 42 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 65 ; Williams, Bull. Herb. Boiss., v. (1905) p. 950.

Chiengmai, 300 m., *Kerr*, 1476 ; Koh Chang, Klong Sarlakpet, *Schmidt*, 731.

Distr. Trop. Asia, Australia, Polynesia, America Cent.

Argostemma stellatum, *Craib*, ab *A. verticillato*, Wall., antheris longioribus haud liberis facile distinguenda.

Herba erecta, 5–12 cm. alta, foliis supra interdum pauperrime brevissime setulosis exceptis omnino glabra. *Folia* 4, verticillata, anguste obovata, obovato-elliptica vel fere elliptica, apice plerumque breviter acuminata, obtusiuscula, basi cuneata, 1·2–3·5 cm. longa, 0·8–2 cm. lata, sessilia vel subsessilia, membranacea, supra fusco- subtus pallide viridia, nervis lateralibus utrinque circiter 5 pagina utraque subconspicuis. *Inflorescentia* terminalis, e pedunculis 1–5 fasciculatis unifloris vel dichotome cymosis laxe paucifloris constituta, pedunculo communi ad 2·5 cm. longo, pedicellis 1·5–2·3 cm. longis. *Corolla* alba (ex *Kerr*), fere rotata, lobis 4–5 anguste linearilanceolatis circa 8 mm. longis 2 mm. latis. *Filamenta* brevissima ; antherae in columnam corolla paullo breviorem conniventes, connectivo producto.—*Craib*, Kew Bull. 1911, p. 387.

Chiengmai, Meh Hia, damp rocks by stream, 390 m., *Kerr*, 1413.

Argostemma verticillatum, *Wall.*—F.B.I., iii. p. 43, pro parte.
Chiengmai, on damp rocks on Doi Sootep, 720 m., *Kerr*, 728.
Distr. Himalayas, Khasia, Burma, Yunnan.

Oldenlandia alata, *Koen.*—F.B.I., iii. p. 70.
Sriracha, shady bank by sea-shore, *Kerr*, 2040.
Distr. India, Java, Tonkin.

Oldenlandia auricularia, *F. Muell.*—Williams, Bull. Herb. Boiss., v. (1905) p. 950. *O. costata*, K. Sch., Bot. Tidsskr., xxiv. p. 330; Williams, l.c. p. 950, non *Spermacoce costata*, Roxb. *Hedyotis auricularia*, Linn.—F.B.I., iii. p. 58.
Koh Chang, *Schmidt*, 412.
Distr. S.E. Asia, Australia.

Oldenlandia coronata, *Williams*, Bull. Herb. Boiss., v. (1905) p. 950. *Hedyotis connata*, Hook. f., F.B.I., iii. p. 62.
Chiengmai, in evergreen jungle on Doi Sootep, 720 m., *Kerr*, 792.
Distr. Amherst, Mergui, Gia laa mè (*Pierre*, 2034).

Oldenlandia dichotoma, *Koen.*—F.B.I., iii. p. 67.
Raheng, *Lindhard*.
Distr. India, Malay Peninsula.

Oldenlandia diffusa, *Roxb.*—F.B.I., iii. p. 65; Williams, Bull. Herb. Boiss., v. (1905) p. 950; Hosseus, ii. p. 446.
Chiengmai, Doi Sootep, 330 m., *Kerr*, 1357.
Distr. S.E. Asia.

Oldenlandia hirsuta, *Linn. f.*—Williams, Bull. Herb. Boiss., v. (1905) p. 950. *Hedyotis stipulata*, Br.—F.B.I., iii. p. 63.
Chiengmai, Doi Sootep, 690 m., *Kerr*, 1491.
Distr. Himalayas, China, Japan, Khasia, Malay Peninsula.

Oldenlandia hispida, *Benth.* *Hedyotis hispida*, Retz.—F.B.I., iii. p. 60.
Chiengmai, in mixed jungle at foot of Doi Sootep, 300 m., *Kerr*, 1234.
Distr. Himalayas, Burma, Assam, China, Philippines, Cambodia.

Oldenlandia nudicaulis, *Roth*—F.B.I., iii. p. 70; Williams, Bull. Herb. Boiss., v. (1905) p. 951.
Chiengmai, in deciduous jungle on Doi Sootep, 300 m., *Kerr*, 767.
Distr. Himalayas, Burma, Assam, Java.

Oldenlandia paniculata, *Linn.*—F.B.I., iii. p. 69; Williams, Bull. Herb. Boiss., v. (1905) p. 951.
Chiengmai, 300 m., *Kerr*, 1474—"a garden weed."
Distr. S.E. Asia to Polynesia.

Oldenlandia (Hedyotis) tenelliflora, *Blume*, var. **Kerrii**, *Craib*, a typa partibus omnibus paullo majoribus, cymis capitatis subsessilibus vel pedunculis usque ad 1 cm. longis suffultis differt.—*Craib*, Kew Bull. 1911, p. 388.
Chiengmai, Doi Sootep, deciduous jungle, 300–750 m., *Kerr*, 821.
The genus *Oldenlandia* is here used to include the genus *Hedyotis* of the Flora of British India as proposed by Schumann in Engler Pflanzenfam., and it is possible that in a revision of the genus the plant here treated as a variety may have to be regarded as a distinct species.

Oldenlandia Wallichii, *Craib*, Kew Bull. 1911, p. 388, comb. nov. *Hedyotis Wallichii*, Kurz—F.B.I., iii. p. 53.
Chiengmai, in deciduous jungle on Doi Sootep, 360 m., *Kerr*, 1498.
Distr. Andamans, Burma, Borneo.

Oldenlandia, sp. aff. *O. prostratae* (Korth.). *O. lineata*, K. Sch., Bot. Tidsskr., xxiv. p. 330; Williams, Bull. Herb. Boiss., v. (1905) p. 950, non *Hedyotis lineata*, Roxb.
Koh Chang, Klong Son, *Schmidt*, 634a!

Anotis quadrilocularis, *Hook. f.*, F.B.I., iii. p. 74.
Chiengmai, Doi Sootep, damp rocks by stream, 720 m., *Kerr*, 1421.
Distr. Ceylon, S. India.

Ophiorrhiza Harrisiana, *Heyne*, var. **argentea**, *Hook. f.*, F.B.I., iii. p. 78.
Chiengmai, in evergreen jungle on Doi Sootep, 660–900 m., *Kerr*, 1174, 1838.
Distr. Sylhet, Khasia.

Ophiorrhiza rosea, *Hook. f.*, F.B.I., iii. p. 78.
Chiengmai, Doi Sootep, 900–1350 m., *Kerr*, 709, 1254.
Distr. Khasia, Mishmi, Sikkim.

Mussaenda Hossei, *Craib*, a *M. breviloba*, S. Moore, foliis tenuioribus indumento subtus parciore, sepalis expansis majoribus, corollae tubo usque ad 2·3 cm. longo eiusque indumento extra parciore differt.
Suffrutex circiter 1 m. altus (ex *Kerr*); ramuli graciles, primo densius breviter albo-pubescentes, mox fere glabri, cortice rubro-brunneo parce lenticellato obtecti. *Folia* oblanceolata vel oblongo-oblanceolata, apice acuminata, acuta, basi obtusa vel rotundata, 3–9 cm. longa, 1·5–3·4 cm. lata, chartacea, supra parce pilosula, subtus imperfecte sericeo-pubescentia, nervis lateralibus utrinque circiter 8 supra conspicuis subtus prominulis nervis transversis obscuris, petiolis usque ad 0·5 cm. longis suffulta; stipulae anguste lanceolatae, apice plus minusve bifidae, acutae, 5–7 mm. longae, 2–3 mm. latae. *Receptaculum* subellipsoideum, 2·5 mm. altum, 2 mm. diametro. *Sepala* normalia lanceolata, acuta, 2 mm. longa, 0·5 mm. lata, aucta alba (ex *Kerr*), ad 5·5 cm. longa, 4 cm. lata. *Corollae* aurantiacae (ex *Kerr*) tubus 2·2–2·3 cm. longus, superne dilatatus, extra, superne praecipue, strigillosus, intra apicem versus villosus, lobi suborbiculares, acuminati, circa 2 mm. diametro. *Antherae* 4 mm. longae, filamentis brevibus. *Fructus* oblongo-ellipsoideus, 1·8 cm. altus, 0·8 cm. diametro, lenticellatus, sepala perpauca persistentia gerens.—Hosseus, ii. p. 444 et Craib apud Hosseus, ii. p. 457; Craib, Kew Bull. 1911, p. 388.
Chiengmai, Doi Sootep, *Hosseus*, 242 (Herb. Kew! Hoss.! et Copenhagen!), in deciduous jungle, 300–900 m., *Kerr*, 926, 936a.
Hosseus, 447 also from Doi Sootep is probably only a form of *M. Hossei* differing chiefly in the sparser indumentum of the inflorescence.—*M.* sp., Hosseus, ii. p. 445; *M. sutapensis*, Hosseus, Fedde Repert. Nov. Sp., x. p. 62.

Mussaenda Kerrii, *Craib*, ex affinitate *M. polyneurae*, King, a qua foliis formae diversae majoribus, cortice brunneo vel rubro-brunneo, stipulis parvis recedit.

Frutex scandens (ex *Kerr*) ; ramuli teretes, ad 4 mm. diametro, primo puberuli, mox glabri, cortice pallide brunneo vel rubro-brunneo striato parce lenticellato obtecti. *Folia* oblanceolata, oblongo-oblanceolata vel rarissime obovato-oblanceolata, apice acuminata, basi cuneata, 8–22 cm. longa, 2·5–6 cm. lata, chartacea, utrinque glabra nisi nervis subtus brevissime adpresse pilosula, subtus pallidiora, nervis lateralibus utrinque 7–9 arcuatis supra conspicuis subtus prominulis, nervulis utrinque, subtus magis, conspicuis ; petioli 1 cm. longi, supra canaliculati, subglabri ; stipulae deciduae, acuminatae, 2 mm. longae. *Cymulae* in corymbos foliis breviores dispositae, pedunculo communi usque ad 5 cm. longo, pedunculis partialibus ad 1·5 cm. longis, pedicellis brevibus ; bracteae parvae. *Receptaculum* glabrescens, circiter 3 mm. altum. *Calycis* lobi ut videtur post anthesin decidui, normales linearilanceolati, acuti, 1–1·5 mm. longi, parce setulosi et breviter setulosociliati, aucti albi (ex *Kerr*), majusculi, longe petiolati. *Corollae* tubus 2·5 cm. longus, extra glabrescens, intra pilosus, lobi deltoidei, acuminati, 3 mm. longi, 1·5–2 mm. lati. *Antherae* anguste lineares, 4 mm. longae.—*Craib*, Kew Bull. 1911, p. 389.

Chiengmai, marshy ground in evergreen jungle on Doi Sootep, 660 m., *Kerr*, 1112 ; Phre, 180 m., *Luang Vanpruk*, 196.

Lao name, Dok Kem bai (ex *Luang Vanpruk*).

Mussaenda neosootepensis, *Craib*, ab affini *M. incana*, Wall., ramulorum indumento breviore parciore, foliis valde minoribus, corollae tubo breviore indumento parciore distincta.

Suffrutex parvus ; ramuli primo breviter pilosi, mox fere glabri, cortice rubro-brunneo striato obtecti. *Folia* elliptica, ovato-lanceolata vel ovata, apice distincte vel vix acuminata, obtusiuscula, basi attenuata vel rotundata, 3–6 cm. longa, 1·3–3·3 cm. lata, chartacea, supra pilis basi incrassatis instructa, subtus hirsuta, nervis lateralibus utrinque 6 pagina utraque conspicuis ; petioli ad 4 mm. longi ; stipulae lanceolatae, 5 mm. longae, apice plus minusve bifidae. *Cymulae* in corymbos terminales dispositae ; bracteae parvae, lineari-lanceolatae ; pedicelli breves. *Receptaculum* 3 mm. altum, dense hirsutum. *Calycis* lobi 5 mm. longi ; sepala in laminas expansa rara, parva. *Corollae* luteae tubus 2·2 cm. longus, lobi acuminati, 6 mm. longi, 3 mm. lati. *Antherae* anguste lineares, 4 mm. longae, filamentis circiter 1 mm. longis.—*M. sootepensis*, Craib, Kew Bull. 1911, p. 389, non *M. sutapensis*, Hosseus.

Chiengmai, Doi Sootep, deciduous jungle, 600 m., *Kerr*, 1183.

Dr. Kerr describes this plant as a low straggling shrub but I cannot distinguish specifically from it his 744 also collected in deciduous jungle on Doi Sootep 300–720 m. which he describes as having prostrate creeping shoots. The latter would appear to have grown under more adverse conditions and has slightly narrower leaves which dry brown.

Mussaenda uniflora, *Wall.*—F.B.I., iii. p. 86 ; Hosseus, ii. p. 445.

Chiengmai, Doi Sootep, 300 m., *Kerr*, 680 ; Muang Fang, 500 m., *Hosseus*, 603.

Distr. Lower Burma.

Mussaenda sp. allied to *M. Kerrii*, *M. polyneura*, and probably to *M. Wallichii* but too incomplete to admit of certainty. *M.* sp., Hosseus, ii. p. 445.

Chiengmai, Doi Sootep, *Hosseus*, 241.

Mycetia cauliflora, *Reinw.*

Chiengmai, Doi Sootep, evergreen jungle by stream, 900 m., *Kerr*, 1833.

Distr. Java, Yunnan.

Mycetia longifolia, *K. Sch.* *Adenosacme longifolia*, Wall.—F.B.I., iii. p. 95 ; For. Fl. Burma, ii. p. 54.

Chiengmai, in evergreen jungle on Doi Sootep, 660 m., *Kerr*, 1148.

Distr. Himalayas, Burma, Assam, Yunnan, Tonkin, Malaya.

Randia dumetorum, *Lamk.*—F.B.I., iii. p. 110.

Chiengmai, Doi Sootep, 300–450 m., *Kerr*, 568.

Distr. India, Burma, Malaya.

This plant is identical with the plant referred to *R. tomentosa* by Collett and Hemsley in Journ. Linn. Soc., xxviii. p. 66. In the writer's opinion it is referable rather to *R. dumetorum* in the wide sense and may possibly be *R. nutans*, DC.—a species maintained in For. Fl. Burma, ii. p. 45.

Randia Griffithii, *Hook. f.*, F.B.I., iii. p. 112 ?

Chiengmai, Doi Sootep, evergreen jungle, 1050 m., *Kerr*, 1776.

Distr. Khasia.

This species is represented at Kew by fruiting specimens only, and those collected by Dr. Kerr are all in flower.

Randia longiflora, *Lamk.*—F.B.I., iii. p. 111, pro parte ; Williams, Bull. Herb. Boiss., v. (1905) p. 952, pro parte. *Webera longiflora*, Kurz, For. Fl. Burma, ii. p. 48.

Klong Son, *Schmidt*, 652.

Distr. China, Indo-China, Malaya.

Randia longiflora, *Lamk.*, var. ? *R. fasciculata*, K. Sch., Bot. Tidsskr., xxiv. p. 332 ; Williams, Bull. Herb. Boiss., v. (1905) p. 952, *non* DC.

Klung, *Schmidt*, 372.

Randia siamensis, *Craib*, Kew Bull. 1911, p. 390, nom. nov. *R. longiflora*, Lamk.—F.B.I., iii. p. 111, pro parte : Williams, Bull. Herb. Boiss., v. (1905) p. 952, pro parte. *Webera siamensis*, Kurz, For. Fl. Burma, ii. p. 48. *Griffithia siamensis*, Miq.

Chiengmai, in deciduous (eng) jungle, 300 m., *Kerr*, 583 ; Cape Liant, *Murton*, 52 ; Bangkok, *Schomburgk*, 113.

Distr. Burma.

The writer cannot acquiesce in the treatment of *R. longiflora* in the Flora of British India, l.c. and proposes the name *R. siamensis* for the Indo-Chinese plant with the short corolla tube which was originally described by Miquel as *Griffithia siamensis*.

Randia similis, *Craib*, a *R. hygrophila*, Hook. f., cui affinis, floribus paullo minoribus solitariis ad apices ramulorum brevium lateralium gestis, calycis lobis haud ciliatis recedit.

Ramuli validi, cinerei, glabri, haud nitidi. *Folia* (vix matura ?) sessilia vel subsessilia, obovato-oblanceolata vel obovato-elliptica, apice rotundata, breviter apiculata, basi cuneata, 1·5–3·5 cm. longa,

0·5–1·5 cm. lata, rigide chartacea, utrinque fere glabra nisi subtus inter costam et nervos primarios floccosa, nervis lateralibus utrinque usque ad 12 pagina utraque conspicuis. *Flores* solitarii, ad apices ramulorum lateralium 2–5 cm. longorum gesti. *Receptaculum* turbinatum, circa 4 mm. altum, fere glabrum. *Calycis* lobi 5–6, subaequales, lineares, obtusiusculi, circiter 5 mm. longi, 1 mm. lati, glabri. *Corollae* extra pilosulae intra glabrae, tubus 1·6–1·8 cm. longus, superne leviter dilatatus, apice 6–7 mm. diametro, lobi 5–6, subaequales, obovati vel elliptico-obovati, apice rotundati, 1–1·4 cm. longi, 8–9 mm. lati. *Antherae* anguste lineares, 9 mm. longae. *Ovarium* 2-loculare ; stylus validus, glaber, stigmate fusiformi apice brevissime 2-dentato.—*Craib*, Kew Bull. 1911, p. 391.

Lower Siam, Paknampo, common in dry deciduous jungle, *Witt*, 22.

Randia sootepensis, *Craib*, a *R. macrophylla*, Hook. f., foliis minoribus, calycis lobis vix 4 mm. longis, corolla circiter 6·5 cm. tantum longa recedit.

Suffrutex ad 3·5 m. altus (ex *Kerr*), receptaculo calyceque exceptis fere omnino glaber. *Folia* lanceolata vel oblongo-lanceolata, apice acuminata, acutiuscula, basi cuneata, 5–15 cm. longa, 1·2–5 cm. lata, subcoriacea, nervis lateralibus utrinque 7–8 intra marginem arcuatis pagina superiore subconspicuis inferiore prominentibus, petiolis brevibus suffulta ; stipulae deciduae, deltoideae, 4 mm. longae, 2 mm. latae. *Flores* sessiles, gemini, pedunculo communi brevi suffulti. *Receptaculum* tubulosum, 6 mm. altum, 3 mm. diametro. *Calycis* tubus 3 mm. longus, lobi lanceolati, acuti, tubo aequialti ; calyx ut receptaculum adpresse albido-hirsutus, lobis intra adpresse pubescentibus. *Corollae* albae et fauce purpureo-pictae (ex *Kerr*) tubus 5·5 cm. longus, parte basi tubulosa 2 mm. diametro superne ampliatus ad 1·2 cm. diametro, lobi 2 cm. longi, 1·2 cm. lati, apice obtusi. *Antherae* 1·4 cm. longae. *Stylus* 5 cm. longus, glaber.—*Craib*, Kew Bull. 1911, p. 391.

Chiengmai, Doi Sootep, 660–800 m., *Kerr*, 1651, *Hosseus*, 451a.

Randia tomentosa, *Hook. f.*, F.B.I., iii. p. 110 ; Hosseus, ii. p. 445 ; *non* Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 66. *Gardenia dasycarpa*, Kurz, For. Fl. Burma, ii. p. 42 (ex *F.B.I.*).

Chiengmai, in deciduous jungle on lower slopes of Doi Sootep, 300–450 m., *Kerr*, 576 ; Lower Siam, *Murton*, 140.

Distr. Burma, Cambodia, Java.

Randia uliginosa, *DC.*— F.B.I., iii. p. 110 ; For. Fl. Burma, ii. p. 44 ; Hosseus, ii. p. 445.

Chiengmai, in deciduous (eng) jungle, 300 m., *Kerr*, 579.

Distr. India, Burma.

Randia Wallichii, *Hook. f.*, F.B.I., iii. p. 113.

Chiengmai, Doi Sootep, 600 m., *Kerr*, 629, 1196, 1196a.

Distr. Bhutan, Yunnan, Burma, Khasia, Chittagong, Java.

Randia Wittii, *Craib*, ab affini *R. exaltata*, Griff., foliis molliter pubescentibus, corolla multo majore facile distinguenda.

Arbor 4·5–7·5 m. alta (ex *Witt*) ; ramuli primo dense albo-pubescentes, mox glabri, cortice fusco-brunneo obtecti. *Folia* oblanceolata vel anguste elliptica, apice breviter acuminata,

obtusiuscula, basi cuneata, ad 12·5 cm. longa, 6 cm. lata, subcoriacea, utrinque molliter pubescentia, nervis lateralibus utrinque 8–9 supra conspicuis subtus prominulis; petioli ad 8 mm. longi; stipulae deciduae, 3 mm. longae, 3·5 mm. latae. *Cymae* pseudoaxillares, pluriflorae, densius breviter hirsutae, pedunculo communi circa 0·5 cm. longo, pedicellis fere 1·5 cm. longis, bracteis deciduis. *Receptaculum* campanulatum, fere 4 mm. altum. *Calyx* ad 3 mm. altus, dentatus. *Corollae* albae tubi purpureo-picti (ex *Witt*) pars basi aequalis 7 mm. longa, 4 mm. diametro, pars superior campanulata, ad 3·5 cm. longa, apice 4 cm. diametro, lobi oblongi, obtusi, 2·5 cm. longi, 1·7 cm. lati. *Antherae* lineares, 1·4 cm. longae.—*Craib*, Kew Bull. 1911, p. 392.

Lower Siam, Korat, in dry deciduous jungle, 60 m., *Witt.*

Gardenia erythroclada, *Kurz*—F.B.I., iii. p. 119; For. Fl. Burma, ii. p. 40; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 66.

Chiengmai, in deciduous jungle on Doi Sootep, 300 m., *Kerr*, 647.

Distr. Burma.

Gardenia obtusifolia, *Roxb.*—F.B.I., iii. p. 116; For. Fl. Burma, ii. p. 42. ? *G. sp.*, Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 66.

Chiengmai, deciduous jungle, foot of Doi Sootep, 300–720 m., *Kerr*, 543.

Distr. Burma.

Gardenia sessiliflora, *Wall.*—F.B.I., iii. p. 118; For. Fl. Burma, ii. p. 40.

Chiengmai, mixed jungle, foot of Doi Sootep, 300 m., *Kerr*, 587.

Distr. Pegu.

Gardenia sootepensis, *Hutchinson*, affinis *G. coronariae*, Ham., sed foliis subtus molliter tomentellis differt.

Arbor; ramuli teretes, apice foliacei, internodiis vix 1 cm. longis, cortice parce tomentello demum glabro. *Folia* obovata vel obovato-elliptica, breviter acuminata, acumine obtuso vel subobtuso, basi obtusa vel subacuta, 9–11 cm. longa, 3–5 cm. lata, rigide chartacea, supra viscida, puberula, subtus plerumque molliter tomentella, nervis lateralibus utrinque 15–20 leviter obliquis subtus valde prominentibus, venis subtus paulo conspicuis; petiolus ad 1 cm. longus, viscidus, puberulus; stipulae in tubum connatae, 1 cm. longae, truncatae, submembranaceae, ciliatae, demum leviter induratae et deciduae. *Flores* ad ramulorum apices solitarii; pedicelli 1–1·5 cm. longi, robusti, viscidi, puberuli. *Receptaculum* subcylindraceum, 5 mm. longum, puberulum. *Calyx* tubulosus, superne unilateraliter fissus, 1·3–1·5 cm. longus, extra viscidus, parce pubescens, intra adpresse pilosus. *Corolla* alba, demum flava (ex *Kerr*): tubus cylindraceus, 5–5·5 cm. longus, medio 3–4 mm. diametro, extra minute puberulus, intra glaber; lobi 5, late obovati, circiter 4 cm. longi et 3 cm. lati, venosi, glabri. *Antherae* supra medium affixae, 1·5 cm. longae, circiter 2 mm. exsertae vel inclusae. *Stylus* 6 cm. longus, sulcatus, inferne parce subadpresse pubescens, stigmate clavato. *Ovarii* placentae 2. *Fructus* oblongo-ellipsoideus, 4 cm. longus, vix 3 cm. diametro, parce lenticellatus; pericarpium durum, lignosum, 2 mm. crassum. *Semina* ∞, foveolata.—*Hutchinson* apud Craib, Kew Bull. 1911, p. 392.

Chiengmai, Doi Sootep, mixed jungle, 750 m., *Kerr*, 1794.

Griffith 2818 from Burma is probably this species, though the internodes on the main branchlets are much longer than in the Siamese specimens.

Hyptianthera bracteata, *Craib*, *H. strictae*, Wight et Arn., valde affinis, a qua stipulis multo longioribus, calycis lobis majoribus, bracteolis conspicuis facile distinguenda.

Frutex ad 2·4 m. altus (ex *Kerr*), inflorescentia excepta glaber; ramuli subquadrangulares, cortice rubro-brunneo. *Folia* lanceolata vel ovato-lanceolata, apice acuminata, mucronata, basi cuneata, 13–16·5 cm. longa, 3·5–4 cm. lata, subcoriacea, margine integro, nervis lateralibus utrinque circiter 9 intra marginem arcuatis supra conspicuis subtus cum nervis transversis prominentibus; petioli 1 cm. vix attingentes; stipulae rigidae, dorso superne carinatae, usque ad 1 cm. longae. *Inflorescentia* generis. *Bracteae bracteolaeque* stipulis similes, calycis lobos vix aequantes, ciliatae. *Receptaculum* turbinatum, 1·5 mm. altum. *Calycis* lobi 3·5 mm. longi, acuti, ciliati. *Corollae* albae (ex *Kerr*) tubus vix 2 mm. longus, lobi 2 mm. longi, ciliolati. *Stamina pistillumque* generis.—*Craib*, Kew Bull. 1911, p. 393.

Chiengmai, in evergreen jungle on Doi Sootep, 660 m., *Kerr*, 1145; on old clearing on Doi Sootep, 750 m., *Kerr*, 1792.

This plant in its calyx and bracts somewhat resembles the narrow-leaved Khasia plant included in the Flora of British India under *H. stricta* but is readily distinguished from it by its leaves which are similar to typical *H. stricta*.

Diplospora siamica, *Craib*, a *D. pubescente*, Hook. f., cui affinis, foliis tenuioribus longius petiolatis, calyce subtruncato, corolla majore recedit.

Ramuli primo pubescentes, mox glabri, ad 5 mm. diametro. *Folia* ovato-lanceolata, oblongo-oblanceolata vel obovato-elliptica, apice acuminata, obtusiuscula, basi nonnunquam inaequalia, cuneata, 11–19 cm. longa, 5·2–7·2 cm. lata, chartacea, supra costa pilosula excepta glabra, subtus costa nervisque pubescentia, integra, nervis lateralibus utrinque 7–10 intra marginem arcuatis supra sicco cum costa plerumque impressis subtus prominentibus; petioli circiter 1 cm. longi, ut ramuli pubescentes; stipulae connatae, subulato-acuminatae, ad 8 mm. longae. *Inflorescentia* ex axillis foliorum delapsorum, petiolos subaequans; pedicelli breves; bracteae bracteolaeque parvae, ciliatae, illae connatae, hae liberae. *Receptaculum* campanulatum, 0·75 mm. altum, 1 mm. diametro, glabrum. *Calyx* subpatelliformis, 1 mm. altus, fere 2 mm. diametro, subtruncatus, pauperrime ciliatus. *Corollae* tubus 2·5 mm. longus, lobi 4, 3 mm. longi, 2·5 mm. lati. *Antherae* 2·5 mm. longae, filamentis brevibus. *Stylus* 4 mm. longus, glaber, ad medium bifidus.—*Craib*, Kew Bull. 1911, p. 393.

Chiengmai, Doi Sootep, evergreen jungle, 1650 m., *Kerr*, 1749.

Scyphiphora hydrophyllacea, *Gaertn.*—F.B.I., iii. p. 125; For. Fl. Burma, ii. p. 4; Williams, Bull. Herb. Boiss., v. (1905) p. 953.

Sriracha, along beach, *Kerr*, 2098.

Distr. In mangrove swamps of India, Malaya, N. Australia.

Knoxia brachycarpa, *R. Br.*—F.B.I., iii. p. 130.

Chiengmai, in deciduous jungle on Doi Sootep, 450 m., *Kerr*, 721.

Distr. Tropical Himalaya, Behar, Pegu, Cambodia.

Knoxia corymbosa, *Willd.*—F.B.I., iii. p. 128 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 66.

Chiengmai, in eng jungle on Doi Sootep, 300–450 m., *Kerr*, 799 ; in open grassy spots on Doi Sootep, 1350 m., *Kerr*, 781.

Distr. India, Burma, China, Malaya, N. Australia.

Plectronia didyma, *Kurz*, For. Fl. Burma, ii. p. 35 ; Williams, Bull. Herb. Boiss., v. (1905) p. 953. *Canthium didymum*, Gaertn. f. —F.B.I., iii. p. 132.

Chiengmai, deciduous jungle on Doi Sootep, 300 m., *Kerr*, 1079.

Distr. India, Assam, China, Cochinchina, Malaya.

Plectronia parvifolia, *Kurz*, For. Fl. Burma, ii. p. 36. *Canthium parvifolium*, Roxb.—F.B.I., iii. p. 135.

Chiengmai, Doi Sootep, 450–1050 m., *Kerr*, 664.

Distr. India, Burma, Assam, S. China, Malaya.

Vangueria pubescens, *Kurz*, For. Fl. Burma, ii. p. 34 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 66. *V. spinosa*, Roxb., var. *mollis*, Hook. f., F.B.I., iii. p. 136.

Chiengmai, in eng jungle, 300 m., *Kerr*, 582.

Distr. Bengal, Burma, Cambodia.

Ixora amoena, *Wall.*—F.B.I., iii. p. 146 : *non* Williams, Bull. Herb. Boiss., v. (1905) p. 954. *I. stricta*, Williams, l.c. p. 955, at least for *Schmidt*, 621a, *non* Roxb.

Lem Dan, *Schmidt*, 621a.

Distr. Malaya.

Ixora arguta, *Br.* *I. nigricans*, Br.—F.B.I., iii. p. 148, pro parte. *Stylocoryne Wallichii*, K. Sch., Bot. Tidsskr., xxiv. p. 336 ; Williams, Bull. Herb. Boiss., v. (1905) p. 955, non *Webera Wallichii*, Hook. f.

Lem Dan, *Schmidt*, 800.

Distr. Malay Peninsula.

Ixora grandifolia, *Zoll. et Mor.*, var. glabra, *Craib*, a typa paniculis glabris facile distinguenda.—*Craib*, Kew Bull. 1911, p. 394.

Chiengmai, in eng jungle on Doi Sootep, 330–600 m., *Kerr*, 530, 1706 ; Chiengmai, *Hosseus*, 178 (Herb. Kew! et Copenhagen!) ; Doi Chieng Dao, 400 m., *Hosseus*, 469.

Lao name, Dawk Kem (ex *Kerr*).

Murton, 75 enumerated by Williams under *I. stricta*, is probably also a form or variety of *I. grandifolia*.

Ixora pavettaefolia, *Craib*, Kew Bull. 1911, p. 394, comb. nov. *I. debilis*, Drake, Journ. de Bot., ix. (1895) p. 234. *Mussaenda pavettaefolia*, Kurz, For. Fl. Burma, ii. p. 57 ; F.B.I., iii. p. 91.

Chiengmai, Doi Sootep, 750 m., *Kerr*, 642.

Distr. Burma, Tonkyeghat, *Kurz*, 1409. China : Yunnan, *Henry*, 13757 ; Hainan, *Katsumatra* in Herb. Hongkong, 6714, 6717, 6718. Tonkin, *Balansa*, 2662, 2663.

The fruit of this plant has not, so far as the writer is aware, yet been collected; until fruit is collected, it would appear advisable to follow Drake and leave it in *Ixora*, though the habit is scarcely that of an *Ixora*.

Ixora spectabilis, *Wall.*—F.B.I., iii. p. 141 : For. Fl. Burma, ii. p. 22. *I. grandifoliae*, var.?—Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 67.

Chiengmai, 300 m., *Hosseus*, 451 (Herb. Kew! et Copenhagen!); Doi Sootep, 660 m., *Kerr*, 1800.

Distr. Burma.

Ixora stricta, *Roxb.*—F.B.I., iii. p. 145 ; For. Fl. Burma, ii. p. 26; Williams, Bull. Herb. Boiss., v. (1905) p. 955, pro parte. *I. amoena*, Williams, l.c. p. 954, *non* Wall.

Lem Dan, *Schmidt*, 25.

Distr. India, China, Indo-China.

Ixora stricta, *Roxb.*, var. **Blumeana**, *Kurz*, For. Fl. Burma, ii. p. 26?

Sriracha, Nawng Kaw, in evergreen jungle, 30 m., *Kerr*, 2065.

Ixora sp. near *I. stricta*, Roxb.

Chiengmai, in evergreen jungle on Doi Sootep, 1350–1650 m., *Kerr*, 1745.

Pavetta indica, *Linn.*—F.B.I., iii. p. 150. *Ixora Pavetta*, Roxb.—For. Fl. Burma, ii. p. 18.

Chiengmai, in deciduous jungle on Doi Sootep, 300–1050 m., *Kerr*, 1149, 1775 ; Bangkok, *Schomburgk*, 214.

Distr. India, S. China, throughout Indo-China, Malaya.

Pavetta indica, *Linn.*, var. **tomentosa**, *Hook. f.*, F.B.I., iii. p. 150. *Ixora tomentosa*, Roxb.—For. Fl. Burma, ii. p. 19.

Chiengmai, Doi Sootep, 1050 m., *Kerr*, 725 ; Phre, 150–240 m., *Luang Vanpruk*, 185.

Distr. India, Burma, Assam, Tonkin, Malaya.

Lao name, Khem Peh (ex *Luang Vanpruk*).

Morinda tinctoria, *Roxb.*—F.B.I., iii. p. 156 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 67.

Chiengmai, in evergreen jungle on Doi Sootep, 600–900 m., *Kerr*, 1092 ; Doi Sootep, 700–1000 m., *Hosseus*, 450 (Herb. Kew! et Copenhagen!); Phre, 120–180 m., *Luang Vanpruk*, 151.

Distr. Throughout India, Indo-China, Malaya.

Probably the form described as *M. leiantha*, Kurz, For. Fl. Burma, ii. p. 59.

Morinda tinctoria, *Roxb.*, var. **tomentosa**, *Hook. f.*, F.B.I., iii. p. 156. *M. tomentosa*, Heyne—For. Fl. Burma, ii. p. 60.

Chiengmai, in deciduous jungle on Doi Sootep, 420–440 m., *Kerr*, 1182, 1819; Phre, 156–210 m., *Luang Vanpruk*, 172.

Distr. India, Burma.

Prismatomeris tetrandra, *K. Sch. P. albidiflora*, Thw.—F.B.I., iii. p. 159. *Coffea tetrandra*, Roxb.—For. Fl. Burma, ii. p. 28.

Chiengmai, Doi Sootep, 480 m., *Kerr*, 683, 683a.

Distr. India, Burma, Assam, Cambodia, Cochinchina, Malaya.

Psychotria sp.

Chiengmai, in evergreen jungle on Doi Sootep, 900–1050 m., *Kerr*, 1123, 1188.

In the absence of fruit I hesitate to describe this as new.

Chasalia curviflora, *Thw.*—F.B.I., iii. p. 176; For. Fl. Burma, ii. p. 14; Williams, Bull. Herb. Boiss., v. (1905) p. 955.

Chiengmai, Doi Sootep, in evergreen jungle, 900 m., *Kerr*, 1154.

Distr. India, throughout Indo-China, Malaya.

Geophila reniformis, *Don*—F.B.I., iii. p. 178: Williams, Bull. Herb. Boiss., v. (1905) p. 955.

Sriracha, Nawng Kaw, in evergreen jungle, 30 m., *Kerr*, 2056.

Distr. Tropics.

Cephaelis siamica, *Craib*, a speciebus indicis adhuc descriptis foliis multo minoribus facile distinguenda.

Radix crassa, lignosa; caules lignosi, teretes, ad 52 cm. alti, primo ferrugineo-pilosi, mox glabri, cortice pallide brunneo striato obtecti. *Folia* lanceolata, apice acutiuscula, basi cuneata, 7–13 cm. longa, 2–5 cm. lata, chartacea, margine integra, supra glabra, subtus costa nervisque praecipue pilosa, nervis lateralibus utrinque 7–8 intra marginem arcuatis supra conspicuis subtus prominentibus, nervis transversis vix conspicuis; petioli 0·5–1 cm. longi, pilosi; stipulae deciduae. *Inflorescentia* sessilis, terminalis, densa, capitata. *Receptaculum* 1·5 mm. longum, hirsutum. *Calycis* lobi lanceolati, 3 mm. longi, 1 mm. lati, extra hirsuti. *Corolla* viridis; tubus fere 4 mm. longus, extra fere glaber, intra fauce dense albo-villosus; lobi deltoidei, 1·5 mm. longi, 1 mm. lati, apice duriusculi, extra apicem versus pilosi. *Stamina* fauce inserta, antheris paullo exsertis. *Ovarium* 2-loculare, ovulis solitariis erectis, disco majusculo coronatum; stylus 2 mm. longus, crassiusculus, styli ramis 0·5 mm. longis suberectis.— *Craib*, Kew Bull. 1911, p. 395.

Chiengmai, Doi Sootep, in evergreen jungle, 660 m., *Kerr*, 1173.

As *Psychotria* stands at present this plant might about equally well be considered as belonging to that genus.

Lasianthus Hookeri, *C. B. Clarke ex Hook f.*, F.B.I., iii. p. 184.

Chiengmai, Doi Sootep, in evergreen jungle, 900 m., *Kerr*, 1157.

Distr. Khasia.

Lasianthus Kerrii, *Craib*, a *L. Wightiano*, Hook. f., ramulis adpresse fulvo-hirsutis, foliis supra glabris, nervis lateralibus utrinque 5–7 tantum recedit.

Suffrutex sarmentosus, usque ad 1·2 m. altus (fide *Kerr*); ramuli adpresse fulvo- vel juventute brunneo-hirsuti. *Folia* oblanceolata, elliptico-oblanceolata vel oblonga, apice breviter acuminata, acutiuscula, basi cuneata, obtusa vel rotundata, 5–10 cm. longa, 1·7–4 cm. lata, chartacea vel rigide chartacea, supra glabra, subtus costa nervisque hirsuta, cetera pubescentia, nervis lateralibus utrinque 5–7 supra sicco subconspicuis subtus cum nervis transversis valde prominentibus; petioli 4–9 mm. longi; stipulae deciduae, lineari-lanceolatae, ad 6 mm. longae, 1·5 mm. latae. *Cymae* axillares, sessiles; bracteae parvae, subulatae. *Receptaculum* 2 mm. altum, 1·5 mm. diametro, strigillosum. *Sepala* lineari-lanceolata, acuta, 2 mm. longa, 0·75 mm. lata, extra strigillosa. *Corollae* albae tubus

7 mm. longus, extra parce hirsutus, lobi 2 mm. longi, obtusi. *Antherae* lineares, 1·5 mm. longae, filamentis brevissimis. *Ovarium* 4-loculare.—*Craib*, Kew Bull. 1911, p. 396.

Chiengmai, Doi Sootep, in evergreen jungle, 1260 m., *Kerr*, 1501.

Lasianthus Kurzii, *Hook. f.*, F.B.I., iii. p. 183. *L. stercorarius*, Kurz, For. Fl. Burma, ii. p. 31, *non* Bl. (ex *F.B.I.*).

Chiengmai, Doi Sootep, in evergreen jungle, 900 m., *Kerr*, 1122.

Distr. Burma.

Lasianthus lucidus, *Blume*—F.B.I., iii. p. 184 ; For. Fl. Burma, ii. p. 30 ; Williams, Bull. Herb. Boiss., v. (1905) p. 955.

Doi Intanon, 2350 m., *Hosseus*, 353 (Herb. Kew ! et Copenhagen!).

Distr. Khasia, Java, Celebes.

Paederia foetida, *Linn. ?*

Sriracha, Nawng Kaw, in evergreen jungle, 30 m., *Kerr*, 2066.

Paederia Kerrii, *Craib*, a *P. lanuginosa*, Wall., foliis minoribus indumento subtus vix tam denso, receptaculo hirsuto haud tomentoso, sepalis majoribus, corolla sicco nigra recedit.

Suffrutex scandens ; ramuli primo parcius hirsuti, plus minusve glabrescentes, parce lenticellati. *Folia* ovato-oblonga vel ovato-elliptica, apice acuminata, acuta, basi alte cordata, 3–12·5 cm. longa, 1–9 cm. lata, chartacea, supra scaberula, subtus tomentella, nervis lateralibus utrinque 6–7 pagina utraque conspicuis ; petioli 0·7–3·3 cm. longi ; stipulae mediocres, ovatae vel oblongae, acutae, reflexae. *Bracteae* parvae, lanceolatae, acutae. *Receptaculum* plerumque densius hirsutum, 2 mm. altum, 2·5 mm. diametro. *Sepala* lanceolata, acutiuscula, 2 mm. longa, fere 1·5 mm. lata. *Corollae* tubus ad 1·6 cm. longus, 3·5 mm. diametro, extra parce pilosus, intra dense villosus. *Styli* glabri rami 1·3 cm. longi.—*Craib*, Kew Bull. 1911, p. 396.

Chiengmai, 300 m., *Kerr*, 534 ; behind Ban Djan, 350–500 m., *Hosseus*, 369 (Hb. Kew ! et Copenhagen !).

Distr. Tenasserim, Thoungyen, *Beddome* ; ? Yunnan, *Henry*, 9126.

Henry's specimen is referred here doubtfully as it is in an advanced fruiting stage.

Paederia pilifera, *Hook. f.*, var. **siamensis**, *Craib*, a typa foliis angustioribus, fructu majore, eiusque indumento crassiore, sepalis fructescentibus suberectis haud reflexis recedit.—*Craib*, Kew Bull. 1911, p. 397.

Chiengmai, Doi Sootep, 540 m., *Kerr*, 1076.

The writer has seen only two sheets of *P. pilifera*—the type specimen in the Wallichian herbarium and one collected by Collett (*P. lanuginosa*, Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 67, *non* Wall.). Both are fruiting specimens and Kerr's specimens—also in fruit—differ from the type in the rather narrower more parallel-sided leaves, the somewhat larger fruit crowned by the suberect not reflexed sepals.

Borreria stricta, *K. Sch.* *Spermacoce stricta*, Linn. f.—F.B.I., iii. p. 200 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 68.

Chiengmai, in mixed jungle at foot of Doi Sootep, 330 m., *Kerr*, 1348 ; Wang Djao, *Hosseus*, 51.

Distr. S.E. Asia, Trop. Africa, Mascerene Is.

Rubia siamensis, *Craib*, a *R. cordifolia*, Linn., foliis semper oppositis, inflorescentiae rhachi crassiore, bracteis parvis facile distinguenda.

Caules scandentes, breviter sparse aculeati. *Folia* ovata vel ovato-lanceolata, cordata, apice acuta, 6–11 cm. longa, 3–7·2 cm. lata, chartacea, utrinque costa nervisque aculeata, e basi 3–5-nervata, nervis supra conspicuis subtus prominentibus nervis secondariis obscuris vel subobscuris; petioli ad 8 cm. longi, ut caules aculeati. *Paniculae* axillares, ad 30 cm. longae, bracteis parvis; pedicelli ad 3 mm. longi. *Receptaculum* 0·5 mm. altum, 1·25 mm. latum, glabrum; calyx obsoletus. *Corollae* viridis tubus 1·25 mm. longus, lobi lineari-lanceolati, acuti, 2 mm. longi, 1 mm. lati, intra pulverulento-pilosuli. *Discus* parvus, tumidus. *Stylus* brevis, glaber, stigmate capitato 2-lobato.—*Craib*, Kew Bull. 1911, p. 397.

Chiengmai, Doi Sootep, in evergreen jungle, 900 m., *Kerr*, 1832.

Valerianaceae.

Valeriana Hardwickii, *Wall.*—F.B.I., iii. p. 213.

Chiengmai, Doi Sootep, in open grassy jungle, 1500 m., *Kerr*, 882.

Distr. Himalayas, Burma, Yunnan, Java.

Compositae.

Vernonia bracteata, *Wall.*—F.B.I., iii. p. 232; Williams, Bull. Herb. Boiss., v. (1905) p. 957.

Chiengmai, Doi Sootep, 600–650 m., *Kerr*, 828a, *Hosseus*, 313a.

Distr. Himalayas, Burma, Assam.

Hosseus, ii. p. 445, refers his 313a to forma *silhetensis* (DC. *pro sp.*).

Vernonia bracteata, *Wall.*, var. **subserrata**, *Hosseus*, ii. p. 455.

Chiengmai, Doi Sootep, 900 m. (ex *Hosseus*).

Vernonia chinensis, *Less.*—F.B.I., iii. p. 235. *V. sinensis*, Williams, Bull. Herb. Boiss., v. (1905) p. 957.

Chiengmai, Doi Sootep, in evergreen jungle, 1200 m., *Kerr*, 789.

Distr. China, throughout Indo-China, Malaya.

Vernonia Cumingiana, *Benth.* ?

Chiengmai, Doi Sootep, 660 m., *Kerr*, 1114.

Vernonia divergens, *Edgew.*—F.B.I., iii. p. 234; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 69.

Chiengmai, in evergreen jungle on Doi Sootep, 1200–1650 m., *Kerr*, 524.

Distr. India, Burma, Assam.

Vernonia elaeagnifolia, *DC.*—F.B.I., iii. p. 237; For. Fl. Burma, ii. p. 80; Williams, Bull. Herb. Boiss., v. (1905) p. 957.

Chiengmai, 300 m., in scrub jungle, *Kerr*, 1693; Bangkok, *Schomburgk*, 116, *Zimmermann*, 101; Chantaboon, *Murton*, 63.

Distr. Burma.

Vernonia Parishii, *Hook. f.*, F.B.I., iii. p. 240; Hosseus, ii. p. 455.

Chiengmai, Doi Sootep, 600–1800 m., *Hosseus*, 458.

Distr. Burma, Yunnan.

Vernonia Roxburghii, *Less.*—F.B.I., iii. p. 232; Hosseus, ii. p. 455.
Wang Djao, *Hosseus*, 50.
Distr. India, Burma.

Vernonia saligna, *DC.*—F.B.I., iii. p. 235; Hosseus, ii. p. 455.
Doi Intanon, 600 m., *Hosseus*, 328.
Distr. Nepaul, Assam, Burma, Yunnan.

Vernonia teres, *Wall.*—F.B.I., iii. p. 229; Hosseus, ii. p. 456.
Chiengmai, in eng jungle on Doi Sootep, 300–600 m., *Kerr*, 828.
Distr. India, Burma, Assam, Yunnan.

Vernonia volkamerifolia, *DC.*—F.B.I., iii. p. 240; Hosseus, ii. p. 456.
Chiengmai, Doi Sootep, 1200–1650 m., *Kerr*, 523, *Hosseus*, 227.
Distr. Sikkim, Assam, Burma.

Vernonia volkamerifolia, *DC.*, var. **siamica,** *Hosseus*, ii. p. 456.
Doi Chieng Dao, 1700 m. (ex *Hosseus*).

Adenostemma viscosum, *Forst.*, var. **latifolia,** *Hook. f.*, F.B.I., iii. p. 242; Williams, Bull. Herb. Boiss., v. (1905) p. 957.
Chiengmai, Doi Sootep, 690–900 m., *Kerr*, 1259, 1492.
Distr. Tropics.

Ageratum conyzoides, *Linn.*—F.B.I., iii. p. 243; Williams, Bull. Herb. Boiss., v. (1905) p. 958; Hosseus, ii. p. 447.
Chiengmai, 300 m., "a garden weed," *Kerr*, 1633; Doi Sootep, 700 m., *Hosseus*, 483; Bangkok, *Zimmermann*, 70; Chieng Dao (ex *Hosseus*).
Distr. Tropical Africa eastwards to Japan and Malay Archipelago.

Eupatorium cannabinum, *Linn.*—F.B.I., iii. p. 243.
Chiengmai, Doi Sootep, in open grassy jungle, 1500 m., *Kerr*, 1387.
Distr. Europe and Temperate Asia.

Eupatorium odoratum, *Linn.*—F.B.I., iii. p. 244; Williams, Bull. Herb. Boiss., v. (1905) p. 962; Hosseus, ii. p. 451.
Chiengmai, Doi Sootep, 300–720 m., *Kerr*, 924; Nakontai, 300 m., *Hosseus*, 718a; Raheng, *Lindhard*, 71.
A native of W. Indies—firmly established in Burma.

Dichrocephala latifolia, *DC.*—F.B.I., iii. p. 245; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 70; Hosseus, ii. p. 450.
Chiengmai, Doi Sootep, 1050 m. (ex *Hosseus*).
Distr. Tropical Asia, Africa.

Cyathocline lyrata, *Cass.*—F.B.I., iii. p. 246; Hosseus, ii. p. 450.
Chiengmai, rice-field weed (ex *Hosseus*).
Distr. India, S. China, Indo-China.

Grangea maderaspatana, *Poir.*—F.B.I., iii. p. 247; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 70; Hosseus, ii. p. 452.
Chieng Dao, banks of Meh Ping, 350 m., *Hosseus*, 526; Chiengmai, 300 m., *Kerr*, 1696—"a garden weed."
Distr. Tropical Asia and Africa.

Aster trinervius, *Roxb.*—F.B.I., iii. p. 252. *Boltonia indica*, Hosseus, ii. p. 449, *non* Benth.

Doi Chieng Dao, 2000 m., *Hosseus*, 406.

Distr. Himalayas, Burma, Assam, China, Japan.

The Siam plant quoted is the *A. asperrimum*, Wall. Cat. 2970 in Herb. Kew.

Erigeron linifolium, *Willd.*—F.B.I., iii. p. 254.

Chiengmai, on old clearings on Doi Sootep, 720 m., *Kerr*, 646.

Distr. Japan and Philippines to Canaries.

Conyza viscidula, *Wall.*—F.B.I., iii. p. 258; Hosseus, ii. p. 449.

Chiengmai, Doi Sootep, 720–900 m., *Kerr*, 1725, *Hosseus*, 306.

Distr. India, Burma, Assam, China, Malay Archipelago, Australia.

Blumea aromatica, *DC.*—F.B.I., iii. p. 270.

Chiengmai, Doi Sootep, 1650 m., *Kerr*, 1675.

Distr. Himalayas, Yunnan, Khasia, Tenasserim.

Blumea balsamifera, *DC.*—F.B.I., iii. p. 270; For. Fl. Burma, ii. p. 82; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 71; Williams, Bull. Herb. Boiss., v. (1905) p. 958.

Muang Prow, 480 m., *Kerr*, 1037.

Distr. India, Burma, Assam, Tonkin, Malaya.

Blumea glomerata, *DC.*—F.B.I., iii. p. 262; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 71; Williams, Bull. Herb. Boiss., v. (1905) p. 958.

Chiengmai, Doi Sootep, 300–700 m., *Kerr*, 940, *Hosseus*, 294.

Distr. India, Burma, Assam, S. China, Malay Archipelago, Philippines.

Hosseus, ii. p. 449, identifies his 294 as *B. sericans*, Hook. f. The whole group is much in need of careful revision.

Blumea hieracifolia, *DC.*—F.B.I., iii. p. 263; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 71.

Chiengmai to Muang Fang, 450 m., *Hosseus*, 294a.

Distr. India, Burma, China, Tonkin, Java.

Hosseus, ii. p. 448, records *B. hieracifolia* from Doi Sootep and enumerates his 294a as a form of that species.

Blumea Hossei, *Craib*, ab affini *B. gracili*, Dunn, foliis acutis haud integris facile distinguenda.

Herba erecta, 25–40 cm. alta; caules solitarii, graciles, simplices, scabriduli praetereaque superne albo-pilosi. *Folia* caulis apicem versus gradatim decrescentia, sessilia, lanceolata vel oblanceolata, apice acuta, mucronata, 2·5–6 cm. longa, 0·7–1·2 cm. lata, margine irregulariter dentata, dentibus induratis, rigida, supra juventute pilis albidis deciduis basi incrassatis instructa, mox partibus incrassatis persistentibus scabridula, subtus glabrescentia, primo costa nervisque praecipue pilosa, dentibus exceptis ciliata, nervis lateralibus utrinque circiter 6 pagina superiore obscuris inferiore prominulis. *Capitula* ad caulis apicem congesta, erecta, circiter 7 mm. longa, 7 mm. lata, pedunculis brevibus suffulta. *Involucri* campanulati bracteae lineari-lanceolatae, acuminatae, acutae, exteriores gradatim minores, ciliolatae, extus pubescentes.—*Craib*, Kew Bull. 1911, p. 399; Hosseus, ii. p. 449 et Craib apud Hosseus, ii. p. 457.

Chiengmai, Doi Sootep, 900–1050 m., *Hosseus*, 494 (Herb. Kew! et Copenhagen!) *Kerr*, 2284.

Blumea membranacea, *DC.*—F.B.I., iii. p. 265; Hosseus, ii. p. 449.

Chiengmai, 300 m. (ex *Hosseus*).

Distr. India, Indo-China, Malaya.

Blumea membranacea, *DC.*, var. **subsimplex**, *Hook. f.*, F.B.I., iii. p. 265; Williams, Bull. Herb. Boiss., v. (1905) p. 962.

Chiengmai, at foot of Doi Sootep, 300 m., *Kerr*, 941.

Distr. Sikkim, Bengal, Assam, Burma.

Zimmermann's specimen from Bangkok quoted by Williams, l.c. p. 958 under *B. virens* is referable rather to *B. membranacea*, and probably is the variety *subsimplex* of that species.

Blumea oxyodonta, *DC.*—F.B.I., iii. p. 266; Williams, Bull. Herb. Boiss., v. (1905) p. 958; Hosseus, ii. p. 449.

Ban Gao, 360 m., *Hosseus*, 384.

Distr. India, Burma, China, Philippines.

Evidently allied to this species is *Hosseus*, 482, from Doi Sootep.

Laggera alata, *Schultz-Bip.*—F.B.I., iii. p. 271; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 71.

Chiengmai, in open grassy jungle on Doi Sootep, 1350 m., *Kerr*, 1688.

Distr. S.E. Asia, Trop. Africa.

Laggera flava, *Benth.*—F.B.I., iii. p. 270; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 71; Williams, Bull. Herb. Boiss., v. (1905) p. 958; Hosseus, ii. p. 453.

Chiengmai, Doi Sootep, 300–800 m., *Kerr*, 939, *Hosseus*, 292; Raheng, *Lindhard*, 62.

Distr. India, Burma, Assam, Yunnan, Malay Peninsula.

Laggera pterodonta, *Benth.*—F.B.I., iii. p. 271; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 71.

Chiengmai, Doi Sootep, 1650 m., *Kerr*, 1676.

Distr. Trop. Asia and Africa.

Pluchea eupatorioides, *Kurz*—F.B.I., iii. p. 273; Williams, Bull. Herb. Boiss., v. (1905) p. 958; Hosseus, ii. p. 454.

Meh Kung, 420 m., *Kerr*, 1021.

Distr. Burma, Szemao.

Sphaeranthus indicus, *Linn.*—F.B.I., iii. p. 275; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 72.

Chiengmai, 300 m., in paddy fields, *Kerr*, 1666.

Distr. Trop. E. Asia, Africa, Australia.

Kerr's plant belongs to the form *mollis* (Roxb., *pro sp.*).

Anaphalis adnata, *DC.*—F.B.I., iii. p. 282; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 72; Hosseus, ii. p. 447.

Chiengmai, Doi Sootep, 1680 m. (ex *Hosseus*).

Distr. Himalayas, Khasia, Manipur, Burma, S. China, Philippines.

Anaphalis margaritacea, *Benth.*—Hosseus, ii. p. 448.

Chiengmai, Doi Sootep, 1700 m., *Hosseus*, 189; Doi Chieng Dao.

Distr. Asia, N. America.

Gnaphalium crispatulum, *Hosseus*, ii. p. 451, *an* Del. ?
Doi Sootep, 700 m. and Chieng Dao, 350 m. (ex *Hosseus*).
Distr. Egypt.

Gnaphalium gracillimum, *Perr. ex DC.*—Hosseus, ii. p. 451.
Muang Fang, 100 m. and Chieng Dao 350 m. (ex *Hosseus*).
Distr. Native of Trop. Africa (ex *Hosseus*).

Gnaphalium indicum, *Linn.*—F.B.I., iii. p. 289 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 72 ; Hosseus, ii. p. 451.
Chiengmai, Doi Sootep, 700–900 m., *Hosseus*, 274, 487 ; Chiengmai, 300 m., *Kerr*, 1671—"a garden weed."
Distr. Senegal to China and Japan and south to Australia.

Gnaphalium multiceps, *Wall.*—Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 72 ; Hosseus, ii. p. 452. *G. luteo-album*, Linn., var. *multiceps*, Hook. f., F.B.I., iii. p. 288.
Chiengmai, Doi Sootep, 660–700 m., *Kerr*, 1144, *Hosseus*, 488.
Distr. North India, Burma, Assam, China, Japan, Tonkin, Malay Archipelago.

Inula Cappa, *DC.*—F.B.I., iii. p. 295 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 72 ; Hosseus, ii. p. 452.
Chiengmai, Doi Sootep, 300–1570 m., *Kerr*, 937, 2233, *Hosseus*, 231, 289 ; Doi Chieng Dao, 2180 m., *Hosseus*, 396.
At first sight remarkably different from the Simla form, this plant is probably *I. oblonga*, DC. Hosseus enumerates his 231, 289 and a plant from Wang Djao as *I. Cappa* but refers his 396 to *I. oblonga*, DC., var. *argentea*, DC. In the writer's opinion 231, 289 and 396 belong to the same species.

Inula eupatorioides, *DC.*—F.B.I., iii. p. 295 ; Hosseus, ii. p. 452.
Doi Intanon, 1000 m., *Hosseus*, 331.
Distr. Khasia, Yunnan, Himalayas to Sikkim.

Inula nervosa, *Wall.*, var. ?
Chiengmai, in open grassy jungle on Doi Sootep, 1350–1500 m., *Kerr*, 1502.
Distr. Himalayas, Khasia, Naga Hills, Manipur.

Inula polygonata, *DC.*—F.B.I., iii. p. 293 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 72 ; Williams, Bull. Herb. Boiss., v. (1905) p. 962 ; Hosseus, ii. p. 453.
Chiengmai, Doi Sootep, 300–800 m., *Kerr*, 916, *Hosseus*, 290 ; Nakontai, *Hosseus*, 725 ; Raheng, *Lindhard*, 3.
Distr. Burma.

Inula rubricaulis, *C. B. Clarke*—F.B.I., iii. p. 296 ; Hosseus, ii. p. 453.
Doi Chieng Dao, 2100 m., *Hosseus*, 417.
Distr. Himalayas, Assam, Yunnan.

Inula sp.
Chiengmai, Doi Sootep, 700 m., *Hosseus*, 422.
Enumerated by Hosseus, ii. p. 453, as *Inula* n. sp.

Vicoa auriculata, *Cass.*—F.B.I., iii. p. 297 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 73 ; Hosseus, ii. p. 456.
Chiengmai, Doi Sootep, 300–600 m., *Kerr*, 930, *Hosseus*, 293.
Distr. India, Burma, Yunnan.

Anisopappus chinensis, *Hook et Arn.*—Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 73 ; Hosseus, ii. p. 448.
Pitsanulok, Nakontai, 200 m. (ex *Hosseus*).
Distr. China, Indo-China, Philppines, Tropical Africa.

Xanthium strumarium, *Linn.*—F.B.I., iii. p. 303.
Muang Prow, 480 m., *Kerr*, 1039.
Distr. Tropics and subtropics.

Siegesbeckia orientalis, *Linn.*—F.B.I., iii. p. 304.
Chiengmai, by a temple on waste ground on Doi Sootep, 1020 m., *Kerr*, 863 ; Ban Pong, on waste ground by village, 330 m., *Kerr*, 1949.
Distr. Tropics and subtropics.

Enhydra fluctuans, *Lour.*—F.B.I., iii. p. 304 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 73.
Bangkok, *Zimmermann*, 98 ; Chiengmai, 300 m., *Kerr*, 1667.
Distr. S. E. Asia, Australia, Tropical Africa.

Eclipta erecta, *Linn.*—Williams, Bull. Herb. Boiss., v. (1905) p. 959. *E. alba*, Hassk.—F.B.I., iii. p. 304.
Chiengmai, Ban Pong, 330 m., *Kerr*, 1945.
Distr. Tropics and subtropics.

Wedelia biflora, *DC.*—F.B.I., iii. p. 306.
Sriracha, along beach, *Kerr*, 2150.
Distr. Trop. Africa, Asia, Australia.

Wedelia Wallichii, *Less.*—F.B.I., iii. p. 307.
Chiengmai, in evergreen jungle on Doi Sootep, 1500 m., *Kerr*, 2290.
Distr. Nepaul to Burma and China.

Cosmos caudatus, *H.B.K.*—Hosseus, ii. p. 450.
Wang Djao, 100 m., *Hosseus*, 74.
Native of Trop. America.

Bidens pilosa, *Linn.*— F.B.I., iii. p. 309 : Hosseus, ii. p. 448.
Chiengmai, Doi Sootep, in open grassy spots, 720 m., *Kerr*, 743.
Distr. Cosmopolitan in warm regions.

Bidens pilosa, *Linn.*, var. **bipinnata**, *Hook. f.*, F.B.I., iii. p. 309 ; Hosseus, ii. p. 448.
Chiengmai, Doi Sootep, 700 m. (ex *Hosseus*).
Distr. Tropics and subtropics.

Glossogyne tenuifolia, *Cass.* *Bidens pilosa*, var.—Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 74.
Chiengmai, in deciduous jungle on Doi Sootep, 330 m., *Kerr*, 1913.
Distr. China to Australia.

Gynura pseudo-china, *DC.*—F.B.I., iii. p. 334 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 74. ? *Cynura sinuata*, Hosseus, ii. p. 450.
Chiengmai, Doi Sootep, 660 m., *Kerr*, 1802.
Distr. India, Burma, Malaya.

Emilia angustifolia, *DC.* *E. prenanthoidea*, DC.—F.B.I., iii. p. 336.

Chiengmai, Doi Sootep, 700–1050 m., *Kerr*, 1118, *Hosseus*, 269, 489.

Distr. Sikkim, Assam, Yunnan, Philippines.

Hosseus, ii. p. 450 enumerates his 269 as *E. angustifolia* and 489 as *E. prenanthoidea*.

Senecio Craibiana, *Hosseus*, ii. p. 454.

Doi Chieng Dao, 1800–2200 m., *Hosseus*, 395 (Herb. Kew! Hoss.! Copenhagen!).

Senecio nagensium, *C. B. Clarke*, var. **Lobbii**, *Craib*, Kew Bull. 1911, p. 402; Hosseus, ii. p. 455. *S. densiflorus*, Wall., var. *Lobbii*, Hook. f., F.B.I., iii. p. 355.

Chiengmai, Doi Sootep, 960 m., *Kerr*, 952; Doi Chieng Dao, 2160 m., *Hosseus*, 397; Doi Intanon, 1180 m., *Hosseus*, 335.

Distr. Burma.

This plant may eventually prove to be a rayed state of *S. nagensium*. To the writer, the plant referred to this species by Collett and Hemsley, Journ. Linn. Soc., xxviii. p. 75, appears distinct, its leaves being rounded not cuneate at the base and the serrations being much finer. Hosseus regards his 335 and 397 as specifically distinct. 335 he refers to *S. densiflorus*, Wall. and 397 to *S. nagensium*, var. *Lobbii*.

Senecio triligulatus, *Ham.*—F.B.I., iii. p. 356.

Chiengmai, Doi Sootep, in evergreen jungle, 1650 m., *Kerr*, 1679.

Distr. E. Himalayas, Burma, Yunnan.

Saussurea phyllocephala, *Coll. et Hemsl.*, Journ. Linn. Soc., xxviii. p. 76.

Chiengmai, Doi Sootep, 1350–1570 m., *Kerr*, 1642, *Hosseus*, 230.

Distr. Upper Burma.

Tricholepis karensium, *Kurz*—F.B.I., iii. p. 380.

Chiengmai, Doi Sootep, in open jungle, 1350–1500 m., *Kerr*, 1641.

Distr. Karren, Tenasserim, Yunnan.

Leucomeris decora, *Kurz*, For. Fl. Burma, ii. p. 78; F.B.I., iii. p. 387; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 77.

Chiengmai, Doi Sootep, 1380 m., *Kerr*, 601; Phre, 156–240 m., *Luang Vanpruk*, 113.

Distr. Burma, Yunnan.

Ainsliæa pteropoda, *DC.*—F.B.I., iii. p. 388; Hosseus, ii. p. 447.

Doi Intanon, 2565 m., *Hosseus*, 358a.

Distr. Himalayas, Assam, Burma, Yunnan.

The Shan Hill plant quoted by Collett and Hemsley, Journ. Linn. Soc., xxviii. p. 77, under this species is a much more robust plant, and is C. B. Clarke's *A. silhetensis* which that author afterwards regarded as a variety of *A. pteropoda*.

Pertya Hossei, *Craib*, a *P. scandente*, Sch. Bip., foliis rigidioribus, capitulis paullo longioribus, a *P. ovata*, Maxim., ramulis glabris, foliis minoribus, capitulis longioribus angustioribus, involucri bracteis paucioribus recedit.

Suffrutex 1·5 m. altus (ex *Hosseus*); ramuli graciles, angulati, glabri, cortice cinereo-brunneo. *Folia* alterna, ovato-lanceolata vel ovata, apice acuta, basi cuneata, 1·5–3·3 cm. longa, 1–2 cm. lata, subcoriacea vel rigide chartacea, glabra nisi margine ciliolata, distanter pauci-serrata, trinervata, nervis supra conspicuis subtus prominulis; petioli breves. *Capitula* pluriflora, 2·3 cm. longa; involucri bracteae circiter 6-seriatae, exteriores parvae, ovatae, interiores lineari-oblongae, obtusae, rigidae, glabrae. *Corollae* tubus 1 cm. longus, superne ampliatus, lobi anguste lineari-lanceolati, apice revoluti, 0·5 cm. longi. *Antherae* circiter 0·5 cm. longae, basi caudis 2 mm. longis ciliatis instructae. *Achaenia* vix matura, pilosula, costata.—Hosseus, ii. p. 456 et Craib apud Hosseus, ii. p. 457; Craib, Kew Bull. 1911, p. 402.

Doi Chieng Dao, 2100 m., *Hosseus*, 405 (Herb. Kew! et Copenhagen!).

Gerbera piloselloides, *Cass.*—F.B.I., iii. p. 389; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 77. *G. ovalifolia*, DC.—Hosseus, ii. p. 451.

Chiengmai, on tops of ridges in open jungle on Doi Sootep, 1350–1500 m., *Kerr*, 621.

Distr. N. India, China, Trop. and S. Africa, Mascerene Islands.

Crepis acaulis, *Hook. f.*, F.B.I., iii. p. 396; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 78; Hosseus, ii. p. 450.

Chiengmai, 300 m., *Hosseus*, 442; Doi Sootep, 720 m., *Kerr*, 1727.

Distr. India, Burma, Assam, Yunnan.

Crepis chloroclada, *Coll. et Hemsl.*, Journ. Linn. Soc., xxviii. p. 78.

Chiengmai, in open grassy jungle on Doi Sootep, 1200–1500 m., *Kerr*, 1108.

Distr. Upper Burma, Yunnan.

Crepis japonica, *Benth.*—F.B.I., iii. p. 395; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 78; Hosseus, ii. p. 450.

Muang Fang, 300 m., *Hosseus*, 615.

Distr. Japan south to Australia and west to Afghanistan and S. Africa.

Lactuca Parishii, *Craib*, ab affini *L. alatipidi*, Coll. et Hemsl., foliorum lobis numerosioribus, lobo terminali basi fere recto marginibus rectis vel nonnihil concavis sed nunquam convexis, lobis lateralibus a lobo terminali haud tam distantibus, achæniorum rostris multo brevioribus recedit.

Herba glabra, robusta, 12 dm. vel ultra alta. *Folia* caulina inferiora petiolo 7–12 cm. longo alato suffulta, pinnatisecta, 14–31 cm. longa, lobo terminali deltoideo acuto 9–14 cm. longo 7–11 cm. lato, lobis lateralibus utrinque 2–4 supremis a lobo terminali nunquam ultra 1 cm. distantibus plerumque lanceolatis acutis 2–5 cm. longis 1·2–2·5 cm. latis, rhachi inter lobos alata, membranacea, margine irregulariter lobata et praeterea distanter denticulata. *Capitula* laxe paniculata, erecta, circiter 12-flora, 1·5 cm. longitudinis vix attingentia. *Achaenia* compressa, 0·5 cm. alta, apice in rostrum 1 mm. longum attenuata, faciebus circa

5-costata, costis superne praecipue pilis brevibus rigidis scabridula.—Hosseus, ii. p. 453 et Craib apud Hosseus, ii. p. 457 ; Craib, Kew Bull. 1911, p. 403.

Burma, Moulmein, 1200–1500 m., *Parish*, 423.

Chiengmai, Doi Sootep, 600–1000 m., *Hosseus*, 454 (Herb. Kew ! et Hoss.!), *Kerr*, 1683.

Campanulaceae.

Pratia begonifolia, *Lindl.*—F.B.I., iii. p. 422 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 80.

Chiengmai, Doi Sootep, 1350 m., *Kerr*, 706.

Distr. S.E. Asia.

Lobelia affinis, *Wall.*—F.B.I., iii. p. 424. *Pratia begonifolia*, Hosseus, ii. p. 447, *non* Lindl.

Chiengmai, Doi Sootep, 900–1050 m., *Hosseus*, 497, *Kerr*, 1756.

Distr. India, Burma, Assam, S. China, Malaya.

Lobelia Griffithii, *Hook. f. et Th.*, var. **dopatrioides**, *Kurz*, Journ. As. Soc. Beng., xlvi. p. 211. *L. Griffithii*, Hook. f. et Th.—F.B.I., iii. p. 424, pro parte.

Chiengmai, Doi Sootep, 330 m., *Kerr*, 1466.

Distr. Burma.

Closely allied to this plant is *Hosseus*, 462 from Doi Chieng Dao (*L. radicans*, Hosseus, ii. p. 446, *non* Thunb.).

Lobelia terminalis, *C. B. Clarke*, F.B.I., iii. p. 424. *L. trigona*, Hosseus, ii. p. 446, at least in part, *vix* Roxb.

Chiengmai, Doi Sootep, 800 m., *Hosseus*, 268.

Distr. N. Bengal.

Lobelia trialata, *Ham.*—F.B.I., iii. p. 425.

Chiengmai, Doi Sootep, in open jungle, 660–1350 m., *Kerr*, 1517.

Distr. N. India, Burma, Assam, Java.

Lobelia trigona, *Hosseus*, ii. p. 446, in part, *an* Roxb. ?

Chiengmai, Doi Sootep, 1530 m. (ex *Hosseus*).

Distr. India, Burma, Assam.

Cephalostigma Hookeri, *C. B. Clarke*, F.B.I., iii. p. 429. *C. paniculatum*, Hosseus, ii. p. 446, *non* DC.

Chiengmai, Doi Sootep, 1530 m., *Hosseus*, 225.

Distr. Parasnath, Khasia, Naga and Jaintea Hills.

Campanumaea celebica, *Blume*—F.B.I., iii. p. 436.

Chiengmai, Doi Sootep, 660 m., *Kerr*, 1217.

Distr. Himalayas, Burma, Borneo.

Campanumaea cordata, *Maxim.* *Codonopsis cordata*, Hassk., Retzia, i. p. 9.

Chiengmai, in evergreen and open jungle on Doi Sootep, 900–1200 m., *Kerr*, 1371.

Distr. Java, Sumatra.

I have seen neither Hasskarl's original plant nor the type of *C. javanica*, Bl. Kerr's plant agrees with a plant collected by Teysmann and named *C. cordata* by Miquel, which plant however Koorders regards as *C. javanica*, Blume.

Vacciniaceae.

Agapetes Hosseana, *Diels*, Fedde Rep. Nov. Sp., i. p. 16 ; Hosseus, i. p. 507 et ii. p. 422.

Chiengmai, Doi Sootep, 1350–1650 m., *Hosseus*, 219, *Kerr*, 514 ; Doi Intanon, 2550 m., *Hosseus*, 351 ; Doi Chieng Dao, 2180 m., *Hosseus*, 393.

Vaccinium exaristatum, *Kurz*—For. Fl. Burma, ii. p. 91 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 81. *V. bancanum*, C. B. Clarke, F.B.I., iii. p. 454, pro parte, *non* Miq. *V. Donianum*, Hosseus, i. p. 506 (at least for *Hosseus*, 425), *non* Wight.

Chiengmai, Doi Sootep, 700–1350 m., *Kerr*, 541, *Hosseus*, 425 ; Phre, 156–240 m., *Luang Vanpruk*, 114.

Distr. Burma, Manipur.

Closely allied to this species is *Hosseus*, 204 from Doi Sootep (*V. Leschenaultii*, Hosseus, i. p. 506 et ii. p. 423, *non* Wight) and also *V. mandarinorum*, Diels, from China.

The other plant referred to *V. Donianum* by Hosseus I have not seen but from the distribution it is improbable that it is *V. Donianum*, Wight.

Ericaceae.

Rhododendron moulmainense, *Hook.*—F.B.I., iii. p. 463 ; For. Fl. Burma, ii. p. 94. *R. siamensis*, Diels, Fedde Rep. Nov. Sp., iv. p. 289 ; Hosseus, i. p. 506 et ii. p. 423.

Chiengmai, Doi Sootep, 1500 m., *Hosseus*, 507.

Distr. Moulmein.

Rhododendron oxyphyllum, *Franchet*.

Chiengmai, common in evergreen jungle on Doi Sootep, 900–1350 m., *Kerr*, 539.

Distr. Yunnan.

Very close to and probably not specifically distinct from *R. moulmainense*, Hook. and *R. Westlandii*, Hemsl.

Rhododendron Veitchianum, *Hook.*—F.B.I., iii. p. 473. *R. formosum*, Wall., var. *Veitchianum*, Hosseus, i. p. 505 et ii. p. 422.

Chiengmai, common in evergreen jungle on Doi Sootep, 1350–1650 m., *Kerr*, 512, *Hosseus*, 201.

Distr. Burma, Manipur.

Rhododendron Ludwigianum, *Hosseus*, ii. p. 422. *R.* sp., Hosseus, i. p. 506.

Doi Chieng Dao, 2180 m., *Hosseus*, 401.

Pieris ovalifolia, *D. Don*– F.B.I., iii. p. 460 ; Hosseus, i. p. 506 et ii. p. 422. *Andromeda ovalifolia*, Wall.—For. Fl. Burma, ii. p. 92.

Chiengmai, Doi Sootep, 1350–1650 m., *Kerr*, 674, *Hosseus*, 533a.

Distr. Himalayas, Burma, Assam, China, Japan.

Craibiodendron shanicum, *W. W. Smith*, Rec. Bot. Surv. Ind., iv. p. 277 et Notes Roy Bot. Gard. Edin., No. xxiv. (1912) p. 157, cum. tab.

Chiengmai, Doi Sootep, 360–840 m., *Kerr*, 1282, 1282a, 1369.

Distr. Burma, Yunnan.

Monotropaceae.

Hypopithys lanuginosa, *Nutt.*—F.B.I., iii. p. 476.
Chiengmai, Doi Sootep, in evergreen jungle, 1230 m., *Kerr*, 678.
Distr. Himalayas, Khasia, China, Japan, N. America, Mexico.

Plumbaginaceae.

Ceratostigma asperrimum, *Stapf ex Prain*, Journ. Bot., (1906) p. 6 ; Hosseus, ii. p. 423. *C. plumbaginoides*, Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 81, *non* Bunge.
Doi Chieng Dao, 1900 m., *Hosseus*, 398, pro parte.
Distr. Shan Hills.

Ceratostigma Stapfianum, *Hosseus*, ii. p. 423.
Doi Chieng Dao, 1900 m., *Hosseus*, 398, pro parte.

Plumbago zeylanica, *Linn.*—F.B.I., iii. p. 480.
Chiengmai, 330 m., *Kerr*, 1704.
Distr. Tropics.

Primulaceae.

Lysimachia japonica, *Thunb.*—F.B.I., iii. p. 505 ; Pax et Knuth, Engler Pflanzenr., Primul., p. 262.
Chiengmai, in marshy ground on Doi Sootep, 660 m., *Kerr*, 1146.
Distr. Himalayas to Japan and southwards to Australia.
Kerr's plant belongs to the form *L. debilis*, Wall.

Lysimachia peduncularis, *Wall.*—F.B.I., iii. p. 504 ; Pax et Knuth, Engler Pflanzenr., Primul., p. 271.
Chiengmai, Doi Sootep, 420 m., *Kerr*, 1457.
Distr. Upper Burma.

Myrsinaceae.

Maesa montana, *DC.*—Mez, Engler Pflanzenr., Myrsin., p. 28.
Chiengmai, in evergreen jungle on Doi Sootep, 1050 m., *Kerr*, 954, 1110.
Distr. E. Himalayas, Burma, Assam.

Maesa permollis, *Kurz*—Mez, Engler Pflanzenr., Myrsin., p. 51. *M. mollissima*, Kurz, For. Fl. Burma, ii. p. 100, *non* DC. *M. mollis*, C. B. Clarke, F.B.I., iii. p. 510, pro parte, *non* DC.
Chiengmai, in dense evergreen jungle on Doi Sootep, 1650 m., *Kerr*, 1677.
Distr. Yunnan, Upper Burma.

Maesa ramentacea, *DC.*—F.B.I., iii. p. 508 ; For. Fl. Burma, ii. p. 99 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 81 ; Williams, Bull. Herb. Boiss., v. (1905) p. 226 ; Mez, Engler Pflanzenr., Myrsin., p. 27 ; Hosseus, ii. p. 421.
Chiengmai, Doi Sootep, 330–900 m., *Kerr*, 519, 526, *Hosseus*, 281 ; Phre, Hooey Kong Muang, 240 m., *Luang Vanpruk*, 219.
Distr. S.E. Asia (excl. Philippines).

Embelia pulchella, *Mez*, Engler Pflanzenr., Myrsin., p. 324.
Chiengmai, a woody climber in evergreen jungle on Doi Sootep, 1650 m., *Kerr*, 1687.
Distr. Manipur.

The writer has failed to trace in Herb. Kew any of *Griffith's* 3545 which he could refer to *Watt* 7277 from Manipur. Consequently the type of Mez's species has been taken as *Watt* 7277 (♀). *Kerr's* plant quoted above is ♂ and has the calyx lobes exactly as in Watt's plant and not as described and figured by Mez.

Embelia sootepensis, *Craib*, ab *E. robusta*, Roxb., foliis dentatis facile distinguenda.

Ramuli graciles, juventute parce pilosi, mox fere glabri, cortice cinereo-brunneo obtecti. *Folia* oblanceolata vel elliptico-oblanceolata, apice acuminata, acuta, basi cuneata, 8–15 cm. longa, 2·5–6 cm. lata, membranacea vel tenuiter chartacea, parte basali excepta dentata, supra pilosula, subtus costa nervisque puberula, nervis lateralibus utrinque 6–8 intra marginem arcuatis supra conspicuis subtus prominulis; petioli 1–1·5 cm. longi, supra canaliculati, puberuli. *Racemi* simplices, axillares, solitarii, ad 3 cm. longi, pedunculo brevi suffulti; pedicelli 2 mm. longi, ut rhachi glanduloso-puberuli; bracteae filiformes, circiter 1 mm. longae. *Calycis* lobi lanceolati, acuti, 1 mm. longi, 0·5 mm. lati, dorso glanduloso-puberuli, ciliati, pauci-punctati. *Corollae* segmenta lanceolata, acutiuscula, 2·75 mm. longa, 1 mm. lata, extra glabra, intra papillosa, pauci-punctata. *Stamina* corollam aequantia, antheris dorso punctatis.—*Craib*, Kew Bull. 1911, p. 406.

Chiengmai, in mixed jungle on Doi Sootep, 330 m., *Kerr*, 1355.

Embelia stricta, *Craib*, *E. sessiliflorae*, Kurz, valde affinis sed floribus fructibusque sessilibus, floribus majoribus in paniculas terminales rigidiores minus ramosas parcius puberulas dispositis differt.

Suffrutex scandens; ramuli primo parce puberuli, mox glabri, cortice rubro-brunneo irregulariter fisso obtecti. *Folia* oblongo-elliptica, apice obscure acuminata, obtusa, basi obtusa vel rotundata, 3·5–9·5 cm. longa, 1·2–4·7 cm. lata, rigide chartacea, utrinque glabra, supra nitida, subtus pallidiora, haud nitida, nervis lateralibus utrinque numerosis subparallelis obliquis pagina utraque conspicuis; petioli 0·8–1 cm. longi, irregulariter alati. *Spicae* et solitariae axillares et in paniculas terminales dispositae, rigidiusculae, strictae, ad 9 cm. longae, rhachi puberula; bracteae deciduae, linearilanceolatae, acutae, 3 mm. longae, patentes vel reflexae. *Calyx* fere ad basin 5-partitus, 1·75 mm. altus, segmentis deltoideis late acutiusculis 1 mm. latis extra puberulis ciliatis. *Petala* viridia, oblongo-elliptica, 2·75 mm. longa, 1·5 mm. lata. *Antherae* parvae, filamentis ad $\frac{1}{3}$ longitudinis affixis. *Ovarium* glabrum, stylo brevi, stigmate discoideo. *Fructus* globosus, apiculatus, 5 mm. diametro.—*Craib*, Kew Bull. 1911, p. 407.

Chiengmai, Doi Sootep, 1650 m., *Kerr*, 1753.

Embelia villosa, *Wall.* *E. robusta*, C. B. Clarke, F.B.I., iii. p. 515, pro parte.

Chiengmai, Doi Sootep, in evergreen jungle, 900 m., *Kerr*, 1212.

Distr. Bengal, Burma.

Kerr's plant may belong to the form *reticulata* (Wall. et Mez, pro sp.), but in view of the poor material available the writer does not feel justified in maintaining both species.

Ardisia andamanica, *Kurz*?—F.B.I., iii. p. 521 ; For. Fl. Burma, ii. p. 108 ; Mez, Engler Pflanzenr., Myrsin., p. 110.
Koh Klone, *Murton*, 10 ; Kow Chang Nun, *Murton*, 22.
Distr. Andamans, Malay Peninsula.

Ardisia arborescens, *Wall.*—For. Fl. Burma, ii. p. 110 ; Mez, Engler Pflanzenr., Myrsin., p. 133. *A. humilis*, DC., var. *arborescens*, C. B. Clarke, F.B.I., iii. p. 530.
Chiengmai, Doi Sootep, 720 m., *Kerr*, 565.
Distr. Burma, Chota Nagpur.

Ardisia corymbifera, *Mez*, Engler Pflanzenr., Myrsin., p. 149.
Chiengmai, growing to a height of about 1·2 m., flowers pink, spotted finely with purple, in evergreen jungle on Doi Sootep, 1500–1650 m., *Kerr*, 600, 1815.
Distr. Yunnan.

Ardisia humilis, *Vahl*, forma β. salicifolia, *Mez*, Engler Pflanzenr., Myrsin., p. 129 ; Hosseus, ii. p. 421.
Chiengmai, Ban Djan (ex *Hosseus*).
Distr. (of form). Malay Archipelago.

Ardisia Kerrii, *Craib*, ab affini *A. yunnanensi*, Mez, foliis oblanceolatis vel obovato-oblanceolatis apice abrupte acuminatis, indumento vix tam denso magis cito deciduo, floribus minoribus differt.

Arbor 4·5–7·5 m. alta (ex *Kerr*) ; ramuli validi, primo ferrugineo-tomentelli, mox glabrescentes, cortice cinereo obtecti. *Folia* oblanceolata vel obovato-oblanceolata, apice abrupte breviter acuminata, acutiuscula, basi cuneata, 4·5–13 cm. longa, 2·2–5·2 cm. lata, chartacea, supra fusco-viridia, subtus pallidiora, utrinque glabra, subtus lepidibus minutis ferrugineis instructa, nervis lateralibus utrinque numerosis parallelis supra conspicuis subtus prominulis, costa supra sicco impressa ; petioli 8 mm. longi. *Inflorescentia* submultiflora, e corymbis pinnatim dispositis constituta, foliis brevior ; pedicelli graciles, 7–8 mm. longi. *Calycis* lobi deltoidei, subacuti, 0·75 mm. longi, 1 mm. lati, ciliolati. *Corollae* tubus brevis, lobi oblongi, subacuti, 2 mm. longi, fere 1·5 mm. lati, glabri. *Stamina* corollae subaequalia, antheris acuminatis. *Stylus* porrectus, ante anthesin exsertus.—*Craib*, Kew Bull. 1911, p. 407.

Chiengmai, in evergreen jungle on Doi Sootep, 600–660 m., *Kerr*, 668, 1216.

Ardisia maculosa, *Mez*, Engler Pflanzenr., Myrsin., p. 143.
Chiengmai, a thin bush about 1·5 m. high, flowers purple, in evergreen jungle on Doi Sootep, 900 m., *Kerr* 699.
Distr. Yunnan.

Ardisia vestita, *Wall.*—Mez, Engler Pflanzenr., Myrsin., p. 141. *A. villosa*, Roxb.—F.B.I., iii. p. 525 ; For. Fl. Burma, ii. p. 113.
Chiengmai, Doi Sootep, in evergreen jungle, 720–900 m., *Kerr*, 667.
Distr. Hainan, Yunnan, Malaya.

Sapotaceae.

Mimusops hexandra, *Roxb.*—F.B.I., iii. p. 549 ; Hosseus, ii. p. 424.
Sriracha, *Kerr*, 2091 ; Pahombuk (ex *Hosseus*).
Distr. India, Burma, Cambodia, Cochinchina.

Ebenaceae.

Maba buxifolia, *Pers.*—F.B.I., iii. p. 551 ; For. Fl. Burma, ii. p. 139 ; Williams, Bull. Herb. Boiss., v. (1905) p. 227.

Chiengmai, Doi Sootep, in deciduous jungle, 540 m., *Kerr*, 594, 1134.

Distr. S.E. Asia, Australia, Trop. Africa.

Diospyros ehretioides, *Wall.*—F.B.I., iii. p. 559 ; For. Fl. Burma, ii. p. 129.

Chiengmai, in deciduous jungle on Doi Sootep, 300–540 m., *Kerr*, 577, 1147.

Distr. Burma.

Diospyros Kerrii, *Craib*, *D. Packmanni*, C. B. Clarke, habitu similis sed calycis haud ferruginei lobis fere e basi liberis facile distinguenda.

Arbor 9 m. alta (ex *Kerr*); ramuli primo dense adpresse ferrugineo-hirsuti, plus minusve glabrescentes. *Folia* lanceolata vel oblongo-lanceolata, apice acuminata, subacuta, basi cuneata vel rotundata, 4–10·5 cm. longa, 2–4 cm. lata, rigide chartacea, margine integra, supra juventute costa tantum pubescentia, mox omnino glabra, subtus costa indumento ut ramulis novellis, nervis lateralibus utrinque circiter 8 intra marginem arcuatis pagina utraque juventute conspicuis mox fere obscuris ; petioli circiter 5 mm. longi, indumento ramulorum. *Cymae* ♂ axillares, pauciflorae, pedunculo communi vix 1 cm. longo indumento ut ramulis suffultae. *Calycis* segmenta 4, subrotundata, 3 mm. longa, 2·75 mm. lata, extra adpresse albo-pubescentia, intra glabra. *Corolla* urceolata, extra ut calyce pubescens, intra superne albo-pilosa ; tubus 3·5 mm. longus ; lobi 4, lanceolati, acutiusculi, sub anthesin recurvi, circa 4 mm. longi, 2 mm. lati. *Antherae* geminae, 14, acuminatae, filamento communi 1 mm. longo glabro, filamentis partialibus 1–1·75 mm. longis parce albo-hirsutis. *Ovarii* rudimentum parvum, subglobosum, apice pilis paucis albis ornatum.—*Craib*, Kew Bull. 1911, p. 408.

Chiengmai, Doi Sootep, in evergreen jungle, 660 m., *Kerr*, 1090.

Diospyros mollis, *Griffith*, Journ. Agric. Hortic. Soc. Ind., iii. (1844) p. 145 ; For. Fl. Burma, ii. p. 130.

Chiengmai (ex *Griffith*, l.c.).

Distr. Burma.

Diospyros Packmanni, *C. B. Clarke*, F.B.I., iii. p. 564.

Chiengmai, 300 m., *Kerr*, 1818 ; Bangkok, *Murton*, 12, *Zimmermann*, 172—often cultivated.

Distr. Tavoy.

Lao name, M'Chunn (ex *Kerr*).

Diospyros rhodocalyx, *Kurz*, For. Fl. Burma, ii. p. 133.

Siam (ex *Kurz*, l.c.).

Diospyros siamensis, *Hochr.*

Pl. Bog. Exsicc., No. 73.

Very closely allied to *D. Embryopteris*, Pers. *Schomburgk*, 115, which Williams erroneously states "was not kept," is also allied.

Diospyros variegata, *Kurz*—F.B.I., iii. p. 557 ; For. Fl. Burma, ii. p. 137.

Chiengmai, in evergreen jungle on Doi Sootep, 660–720 m., *Kerr*, 1132, 1789.

Distr. Burma, Assam.

Styracaceae.

Symplocos racemosa, *Roxb.*—F.B.I., iii. p. 576 ; For. Fl. Burma, ii. p. 144 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 83 ; Brand, Engler Pflanzenr., Symploc., p. 59 ; Hosseus, ii. p. 424.

Chiengmai, Doi Sootep, 540–600 m., *Kerr*, 928, 1767, *Hosseus*, 311.

Distr. Himalayas, Burma, Assam.

Symplocos yunnanensis, *Brand*, Engler Planzenr., Symploc., p. 68. ? *S. Hossei*, Brand mss.—Hosseus, ii. p. 424.

Chiengmai, in evergreen jungle on Doi Sootep, 1650 m., *Kerr*, 1507 ; ? Doi Sootep, 1670 m., *Hosseus*, 185.

Distr. Yunnan.

Symplocos sp., *S. racemosae* et *S. pirifoliae* habitu similis.

Chiengmai, Doi Sootep, 1020 m., *Kerr*, 890.

Styrax benzoides, *Craib*, a *S. Benzoin*, Dryand., fructibus multo minoribus, pericarpio multo tenuiore in valvas tres regulariter dehiscente, a *S. suberifolia*, Hook. et Arn., floribus fructibusque minoribus, ab ambobus indumento tenuiore recedit.

Arbor parva vel mediocris (ex *Kerr*) ; ramuli graciles, primo stellato-tomentelli, mox glabri, cortice rubro-brunneo vel pallide brunneo irregulariter longitudinaliter fisso obtecti. *Folia* ovato-lanceolata, apice acuminata, acuta, basi cuneata vel late cuneata, rarissime cuneato-rotundata, 7–15 cm. longa, 3·6–5·7 cm. lata, rigide chartacea, supra glabra, subtus nisi nervis parce stellato-pubescentibus dense breviter tomentella, nervis lateralibus utrinque circiter 9 obliquis intra marginem anastomosantibus supra conspicuis subtus prominentibus, petiolis 1–1·2 cm. longis indumento ut foliorum pagina inferiore suffulta. *Inflorescentia* e paniculis duobus racemiformibus axillaribus superpositis superiore ad 5 cm. longa inferiore dimidio breviore constituta ; rhachis breviter stellato-tomentella ; bracteae fugaces ; bracteolae deciduae, vix 2 mm. longae ; pedicelli circiter 4 mm. longi, indumento ut calyce corollaque extra et foliorum pagina inferiore. *Calyx* truncatus, 3·5 mm. altus, intra superne tenuiter sericeus. *Corollae* albae (ex *Kerr*) tubus 2 mm. longus, lobi late lineares, 9 mm. longi, 1·75 mm. lati, intra superne subsericei, inferne parcissime adpresse albo-pubescentes. *Filamenta* 2·5 mm. longa, breviter albo-pilosa ; antherae 3·5 mm. longae. *Ovarium* circiter 2 mm. altum, adpresse albo-pubescens ; stylus 1·2 cm. longus, glaber. *Fructus* ad 1 cm. altus, pericarpio extra cinereo-tomentello corrugato 0·5 mm. crasso in valvas tres regulariter dehiscente.—*S. Benzoin*, Craib, Kew Bull. 1911, p. 409, *non* Dryand.

Chiengmai, Doi Sootep, 600–1350 m., *Kerr*, 669, 669b.

Lao name Kŭm Yan (ex *Kerr*).

Jasminum adenophyllum, *Wall.* ?—F.B.I., iii. p. 597.

Chiengmai, in scrub jungle on bank of Meh Ping, 300 m., *Kerr*, 1891.

This species is very poorly represented both at Kew and in the Wallichian collection and Kerr's plant if not identical with it is certainly very closely allied.

Jasminum anastomosans, *Wall.*—F.B.I., iii. p. 596; For. Fl. Burma, ii. p. 152; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 84.

Sriracha, in evergreen jungle, 90 m., *Kerr*, 2106.

Distr. Burma, Assam, S. China (Cochinchina ?).

Jasminum arborescens, *Roxb.*, var. **latifolia**, *C. B. Clarke*, F.B.I., iii. p. 594 ?

Chiengmai, in scrub jungle, 330 m., *Kerr*, 1659.

Distr. Himalayas.

Jasminum decussatum, *Wall.*—F.B.I., iii. p. 596; For. Fl. Burma, ii. p. 151.

Bangkok, *Zimmermann*, 94.

Distr. Burma.

Jasminum sootepense, *Craib*, *J. auriculato*, Vahl et *J. brevilobo*, DC., similis, ab illo inflorescentia pauperrima, ab hoc cymis haud capitatis distincta.

Suffrutex sarmentosus, circiter 6 dm. altus (ex *Kerr*); ramuli graciles, primo densius molliter puberuli; rami fere glabri, cortice rubro-brunneo striato obtecti. *Folia* simplicia, ovato-rotundata, ovata vel rarissime ovato-lanceolata, apice plerumque breviter acuminata, mucronulata, basi rotundata vel obtusa, 2–4 cm. longa, 1·6–3 cm. lata, chartacea, utrinque, subtus densius, molliter puberula, nervis lateralibus utrinque circiter 4 intra marginem arcuatis supra subconspicuis subtus prominulis, nervis transversis haud conspicuis; petioli 2–4 mm. longi, indumento ut ramulis. *Flores* axillares, solitarii vel in cymas simplices 3-floras dispositi, albi, nocte expansi (ex *Kerr*); bracteae minutae; pedicelli 5–7 mm. longi, parce puberuli. *Calycis* tubus circiter 2·5 mm. longus, extra glaber, dentes late triangulares, parvi, ciliolati. *Corollae* tubus gracilis, 1·8 cm. longus, lobi lineares, apice acuti vel breviter acuminati, circiter 1 cm. longi, 2 mm. lati. *Antherae* 5 mm. longae, apice acuminatae, filamentis brevibus. *Ovarium* vix 1 mm. altum, glabrum.—*Craib*, Kew Bull, 1911, p. 410.

Chiengmai, in deciduous jungle on Doi Sootep, 360 m., *Kerr*, 1235 and in deciduous jungle, 330 m., *Kerr*, 1882.

Nyctanthes Arbor-tristis, *Linn.*—F.B.I., iii. p. 603; For. Fl. Burma, ii. p. 155.

Bangkok, *Zimmermann*, 87.

Cultivated in tropics.

Schrebera swietenioides, *Roxb.*—F.B.I., iii. p. 604; For. Fl. Burma, ii. p. 156; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 84.

Chiengmai, in deciduous jungle on Doi Sootep, 480 m., *Kerr*, 1811.

Distr. India, Burma.

Linociera caudata, *Coll. et Hemsl.*, Journ. Linn. Soc., xxviii. p. 84.
Meh Ping, Chieng Dao, 390 m., in evergreen jungle, *Kerr*, 1058 ; Me Sangon Phre, 240 m., *Luang Vanpruk*, 238.
Distr. Upper Burma.
Differs from the type specimens in having the leaves obtusely caudate acuminate.

Linociera macrophylla, *Wall.*, var. **attenuata**, *C. B. Clarke*, F.B.I., iii. p. 611. *Chionanthus macrophyllus*, Kurz, For. Fl. Burma, ii. p. 159.
Chiengmai, Doi Sootep, 480 m., *Kerr*, 1142 ; Phre, 156–240 m., *Luang Vanpruk*, 111.
Distr. Burma, Malaya, Australia.

Linociera terniflora, *Wall.*—F.B.I., iii. p. 610. *Olea terniflora* Kurz, For. Fl. Burma, ii. p. 157.
Phre, 156–210 m., *Luang Vanpruk*, 168.
Distr. Burma.

Olea dentata, *Wall.*—F.B.I., iii. p. 613 ; For. Fl. Burma, ii. p. 157.
Chiengmai, Doi Sootep, on edge of a clearing, 720 m., *Kerr*, 690.
Distr. Burma, Malay Peninsula.

Olea oblanceolata, *Craib*, affinis *O. roseae*, Craib, sed foliis oblanceolatis serratis vel denticulato-serratis differt.
Arbuscula ad 6 m. alta (ex *Kerr*); ramuli primo parce pubescentes, mox glabri, cortice cinereo-brunneo obtecti, ad 4 mm. diametro. *Folia* plerumque oblanceolata, apice acuminata, acutiuscula, basi cuneata, 8–14·5 cm. longa, 2–4·5 cm. lata, chartacea, supra primo parce pubescentia, mox glabra, subtus plus minusve persistenter molliter pubescentia, margine nisi ima basi acumineque serrata vel denticulato-serrata, nervis lateralibus utrinque 8–9 intra marginem arcuatis supra subobscuris mox cum costa leviter impressis subtus cum costa prominentibus, nervis transversis subobscuris ; petioli 3–8 mm. longi, primo pubescentes, mox glabri, supra canaliculati. *Paniculae* axillares, ad 9 cm. longae et 5 cm. latae, rhachi ramulisque parce pubescentibus ; pedicelli ad 2 mm. longi. *Calyx* vix 1 mm. altus, ad medium lobatus, lobis subaequalibus ovato-lanceolatis subacutis. *Corolla* 3 mm. longa, basi 0·75 mm., superne 2 mm. diametro, lobis brevibus incrassatis cucullatis. *Antherae* 1·5 mm. longae. *Ovarii* rudimentum deficiens. *Flores* ♀ haud visi.—*Craib*, Kew Bull, 1911, p. 410.
Chiengmai, Doi Sootep, in evergreen jungle, 660 m., *Kerr*, 1717.

Olea rosea, *Craib*, ab affini *O. dioica*, Roxb., ramulis, foliis et inflorescentia haud glabris facile distinguenda.
Arbuscula dioica, ad 4 m. alta ; ramuli primo dense molliter puberuli, straminei. *Folia* lanceolata vel oblongo-lanceolata, apice acuminata vel caudato-acuminata, basi cuneata, 4–13·5 cm. longa, 1·6–4·2 cm. lata, rigide chartacea, margine integro, supra plus minusve glabrescentia, subtus, costa nervisque densius, molliter puberula, nervis lateralibus utrinque 6–8 intra marginem arcuatis supra impressis subtus prominentibus, nervis transversis vix conspicuis ; petioli usque ad 7 mm. longi, ut ramuli puberuli. *Flores* sicco rosei, in paniculas terminales geminas vel axillares

solitarias dispositi. *Fl.* ♀. *Calyx* parvus, fere ad medium lobatus, extra parce puberulus. *Corollae* tubus circiter 3·5 mm. longus, dentes breves, cucullati. *Stamina* (an omnino sterilia ?) duo, corollae tubo adnata. *Ovarium* oblongum, glabrum, stylo brevi. *Fl.* ♂. *Calyx* et *corolla* maris sed minores. *Ovarii* rudimentum deficiens. —*Craib*, Kew Bull. 1911, p. 411 ; Hosseus, ii. p. 425.

Chiengmai, Doi Sootep, 900–1000 m., *Hosseus*, 515a (♀) (Herb. Kew et Hossei !), *Kerr*, 1100 (♂), 1843 (♀).

Distr. Yunnan, Szemao, 1500 m., *Henry*, 11661e (♂).

Henry 11661b and 11661a (in part) from the same locality probably also belong.

Apocynaceae.

Allamanda cathartica, *Linn.*—For. Fl. Burma, ii. p. 164.

Bangkok, *Zimmermann*, 49.

Distr. Native of Trop. America—cultivated in Tropics.

Melodinus Henryi, *Craib*, ab affini *M. khasiana*, Hook. f., foliis multo majoribus facile distinguenda.

Frutex scandens ; ramuli novelli olivacei, minute parcissime pilosuli ; rami cortice brunneo striato obtecti. *Folia* opposita vel rarissime subopposita, elliptica, oblonga vel oblanceolata, apice acuminata, subacuta, basi cuneata, 6–16 cm. longa, 2·5–6 cm. lata, chartacea, utrinque glabra, margine integra, nervis lateralibus utrinque numerosis intra marginem arcuatis pagina utraque conspicuis ; petioli ad 8 mm. longi. *Cymae* in paniculas terminales trichotomas dispositae ; bracteae bracteolaeque parvae ; pedicelli breves. *Sepala* rotundata vel late elliptica, 2 mm. longa, ciliata. *Corollae* flavidae tubus 6 mm. longus, basi excepta intra, superne densius, villosus, apice squamis majusculis bifidis instructus, lobi 3·5 mm. longi. *Stamina* paullo infra medium inserta, filamentis brevibus. *Stylus* 3 mm. longus, cum ovario glaber.—*Craib*, Kew Bull. 1911, p. 411.

Chiengmai, Doi Sootep, in evergreen jungle, 900 m., *Kerr*, 1159.

Distr. Yunnan, Szemao, 1200–1500 m., *Henry*, 11,944, 11,944a, 12,725. Burma, Amherst, 600 m., *Lace*, 4760.

Lace's plant differs from the others in its larger leaves which measure up to 22 cm. long and 8 cm. broad.

Rauwolfia densiflora, *Benth.*—F.B.I., iii. p. 633 ; Hosseus, ii. p. 426.

Pahombuk, Muang Fang, 1000 m. et Doi Intanon, 1700 m. (ex *Hosseus*).

Distr. India, Khasia.

Rauwolfia peguana, *Hook. f.*, F.B.I., iii. p. 632 ? ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 85 ; Hosseus, ii. p. 426. *Tabernaemontana ophiorrhizoides*, Kurz, For. Fl. Burma, ii. p. 175 (ex *Brandis*).

Chiengmai, Doi Sootep, in evergreen jungle, 660 m., *Kerr*, 1136.

Distr. Burma.

Carissa Carandas, *Linn.*—F.B.I., iii. p. 630 ; For. Fl. Burma, ii. p. 169.

Meh Ping, Doi Noi, 300 m., *Kerr*, 2009.

Distr. India, Burma, Malaya.

Alyxia siamensis, *Craib*, ab *A. gracili*, Wall., inflorescentia vix glabra recedit.

Frutex vagans, inflorescentia excepta glaber, cortice lenticellato subnitido ramulorum atro ramorum stramineo. *Folia* opposita, elliptica, elliptico-oblanceolata vel oblonga, apice obtuse acuminata, basi cuneata, 5–15 cm. longa, 2–5 cm. lata, rigide chartacea, margine integro leviter recurvo, nervis lateralibus utrinque numerosis parallelis cum nervo intramarginali supra subprominulis subtus conspicuis; petioli 0·5–1 cm. longi, supra canaliculati. *Cymae* in paniculas terminales 5–6 cm. longas dispositae; pedicelli 1–3 mm. longi, albo-tomentelli, basin versus 2-bracteolati. *Calycis* segmenta ovato-lanceolata, acutiuscula, circiter 1 mm. longa, extra albo-tomentella. *Corollae* tubus 6 mm. longus, paullo ultra 1 mm. diametro, lobi oblique elliptici, acutiusculi, 2 mm. longi, 1·5 mm. lati, basi squamulis minutis instructi. *Antherae* parvae, filamentis brevibus suffultae.—*Craib*, Kew Bull. 1911, p. 412.

Chiengmai, Doi Sootep, in evergreen jungle, 840–1260 m., *Kerr*, 783, 1742.

Cerbera Odollam, *Gaertn.*—F.B.I., iii. p. 638; For. Fl. Burma, ii. p. 171.

Bangkok, *Zimmermann*, 129; Chiengmai, Doi Sootep, 1050 m., *Hosseus*.

Distr. S.E. Asia, Australia.

Ervatamia coronaria, *Stapf*. *Tabernaemontana coronaria*, Willd. —F.B.I., iii. p. 645; Hosseus ii. p. 426. *T. divaricata*, Blume—For. Fl. Burma, ii. p. 174.

Chiengmai, Doi Sootep, 300 m., *Kerr*, 612; Bangkok, *Schomburgk*, 185, *Zimmermann*, 16.

Distr. India, Assam, China, Malaya, Trop. Africa.

Holarrhena antidysenterica, *Wall.*—F.B.I., iii. p. 644; For. Fl. Burma, ii. p. 182; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 85.

Chiengmai, Doi Sootep, 300–360 m., *Kerr*, 1129, 1399.

Distr. S. E. Asia—occasionally cultivated in the tropics.

Kerr's specimens belong to the form *pubescens* (Wall., *pro. sp.*).

Vallaris Heynei, *Spr.*—F.B.I., iii. p. 650; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 85; Hosseus, ii. p. 427. *V. dichotoma*, Wall.—For. Fl. Burma, ii. p. 181.

Chieng Dao, in scrub jungle, 450 m., *Kerr*, 1051; Chiengmai, 330 m., *Kerr*, 1703.

Distr. India, Burma, Assam.

Wrightia religiosa, *Benth.*—F.B.I., iii. p. 653, *in nota*; For. Fl. Burma, ii. p. 194.

Bangkok, *Schomburgk*, 132, 171, *Murton*, 6, *Zimmermann*, 24, 115. Siam, *Binnendyck*, *Christie*.

According to Schomburgk this plant is often cultivated in gardens in and around Bangkok on account of its odoriferous flowers. It is also cultivated at Singapore (*Maingay! Schomburgk!*).

Wrightia tomentosa, *R. et S.*—F.B.I., iii. p. 653; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 85; Hosseus, ii. p. 427. *W. mollissima*, Wall.—For. Fl. Burma, ii. p. 192.

Banks of Meh Ping, Wang Djao, 100 m. (ex *Hosseus*).

Distr. India, Burma, Assam.

Aganosma marginata, *Don*—F.B.I., iii. p. 663 ; For. Fl. Burma, ii. p. 186 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 86.

Chiengmai, in mixed jungle at foot of Doi Sootep, 300 m., *Kerr*, 585 ; Siam, *Murton*, 136.

Distr. S.E. Asia.

Ichnocarpus frutescens, *R. Br.*—F.B.I., iii. p. 669 ; For. Fl. Burma, ii. p. 185 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 86.

Chiengmai, in scrub jungle, 300 m., *Kerr*, 1459.

Distr. S.E. Asia, Australia.

I have not seen *Schomburgk*, 272 enumerated by Williams, Bull. Herb. Boiss., v. (1905) p. 949 as *Quirivelia bantamensis*, Williams, and in the MSS. lists in Herb. Kew as *Ichnocarpus frutescens*.

Trachelospermum siamense, *Craib*, a *T. jasminoide*, Lem., foliis majoribus, alabastris apice longius attenuatis, corollae tubo longiore, a *T. fragrante*, Hook. f., alabastris apice longius attenuatis, corollae lobis majoribus, antherarum apicibus exsertis, a *T. gracilipide*, Hook. f., calycis segmentis multo majoribus recedit.

Suffrutex scandens ; ramuli teretes, primo parcissime puberuli mox glabri, vel densissime puberuli pilis longius persistentibus, cortice rubro-brunneo obtecti. *Folia* oblongo-lanceolata vel oblongo-oblanceolata, apice obtusa, brevissime mucronata, basi cuneata, 4·5–13·5 cm. longa, 1·5–4·3 cm. lata, subcoriacea, utrinque glabra, supra nitida, viridia, subtus pallidiora, margine integra, nervis lateralibus utrinque circiter 10 intra marginem arcuatis, costa supra impressa, nervis lateralibus supra subconspicuis subtus cum nervis transversis prominulis ; petioli vix 1 cm. attingentes, supra canaliculati, plus minusve adpresse pubescentes, subtus convexi, fere glabri. *Cymae* laxe paniculatae, pedunculo communi 3–6·5 cm. longo ; pedicelli 0·6–1 cm. longi, glabri, basi bractea parva lanceolata ciliolata instructi. *Sepala* ovato-lanceolata, obtusiuscula, basi gibbosa, 3·5 mm. longa, 2 mm. lata, ciliolata, intra basi squamulis instructa. *Corollae* albae tubus 1·4 cm. longus, 1·5 mm. diametro, apice post antheram quemque lineis duobus pilosis instructus, lobi 1 cm. longi, 8 mm. lati. *Antherae* paullo exsertae, sessiles, basi cornutae, apice in appendiculam membranaceam parum inflexam productae. *Discus* 5-lobatus [vel interdum e glandis secretis constitutus ?], ovario vix aequialtus.—*Craib*, Kew Bull. 1911, p. 414.

Chiengmai, Doi Sootep, 600 m., *Kerr*, 1133.

Amalocalyx microlobus, *Pierre ?*

Chiengmai, in mixed jungle at foot of Doi Sootep, 300 m., *Kerr*, 716, 716a.

Distr. Laos.

Kerr's specimens differ from typical *A. microlobus* in the peduncle being rather thicker, the flowers evidently slightly larger, calyx lobes and corolla tube broader, and the fruit longer and narrower. Unfortunately the material on which Pierre founded his species is rather poor and in the absence of better material I hesitate to separate the Chiengmai plant from it.

Beaumontia sp. n. ?

Kow Hoo Wen, *Murton*, 113.

Probably represents a new species but the material is insufficient for diagnosis.

Asclepiadaceae.

Zygostelma Benthami, *Baill. Hemidesmus indicus*, Williams, Bull. Herb. Boiss., v. (1905) p. 950, *non* R. Br.
Anhin, Schomburgh, 284.

Streptocaulon Griffithii, *Hook. f.*, F.B.I., iv. p. 10. *S. tomentosum*, Williams, Bull. Herb. Boiss., v. (1905) p. 949, *non* Wight.
Chiengmai, in mixed and evergreen jungles on Doi Sootep, 330 m., *Kerr*, 1244 ; Anhin, *Schomburgk*, 252.
Distr. Tenasserim, Mergui, Tonkin, S. China.

Myriopteron extensum, *K. Sch.*—Hosseus, ii. p. 427. *M. paniculatum*, Griff.—F.B.I., iv. p. 11. *Streptocaulon extensum*, Wight—For. Fl. Burma, ii. p. 198.
Chiengmai, in mixed jungle, foot of Doi Sootep, 300 m., *Kerr*, 770 ; Kampeng, 80 m., *Hosseus*, 24.
Distr. Bengal, Assam, Burma, Yunnan.

Secamone micrantha, *Dcne.*
Sriracha, near sea-shore, *Kerr*, 2044.
Distr. Malaya (S. China ?).

Toxocarpus Hosseusii, *Schlechter*, Engler Bot. Jahrb., xl. Beibl. 92, p. 1 ; Hosseus, ii. p. 427.
Paknampo, *Hosseus*, 13 ; ? Chiengmai, in scrub jungle, 300 m., *Kerr*, 1668.
The specimens collected by Kerr are in fruit only and are referred doubtfully to this species.

Oxystelma esculentum, *Br.*—F.B.I., iv. p. 17.
Chiengmai, 300 m., *Kerr*, 1443.
Distr. S.E. Asia.
Lao name, Kio Kou Mai (ex *Kerr*).

Calotropis gigantea, *Br.*—F.B.I., iv. p. 17 ; For. Fl. Burma, ii. p. 200.
Bangkok, *Zimmermann*, 152 ; Chiengmai, 300 m., by moat, *Kerr*, 1957.
Distr. India, Burma, China, Malaya.
Lao name, Pŭn Tuan (ex *Kerr*).

Asclepias curassavica, *Linn.*—F.B.I., iv. p. 18 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 87 ; Hosseus, ii. p. 427.
Chiengmai, Doi Sootep, 1020 m., *Kerr*, 874.
Native of Trop. America.

Raphistemma pulchellum, *Wall.*—F.B.I., iv. p. 19.
Chiengmai, in scrub jungle, 300 m., *Kerr*, 1469.
Distr. Sikkim, Yunnan, Burma, Assam.

Gymnema Griffithii, *Craib*, a *G. molli*, Wall., caulibus pilis longiusculis patulis instructis, corona diversa recedit.
Caules repentes vel volubiles, albo-tomentelli praetercaque pilis longiusculis patentibus densius instructi. *Folia* ovato-elliptica, ovato-lanceolata vel rarissime elliptica, apice acuminata, basi rotundata vel obtusa, 3–5 cm. longa, 1·2–3·6 cm. lata, rigide chartacea, supra parce adpresse albo-pilosula, subtus molliter pubescentia, margine integra, ciliata, nervis lateralibus utrinque 4–5 intra marginem arcuatis supra conspicuis subtus cum nervis transversis

prominulis ; petioli usque ad 2 cm. longi, indumento ut caulibus. *Cymae* densae, subsessiles vel pedunculis usque ad 5 mm. longis suffultae. *Sepala* 5, subrotundata, 3 mm. diametro, ciliata, extra puberula. *Corollae* lilacineae tubus 3 mm. longus, lobi oblongi, apice rotundati, irregulariter leviter emarginati, 2 mm. longi ; corona e squamis 5 apice emarginatis 0·5 mm. altis carnosis lobis alternis et anulo denso pilorum junctis.—*Craib*, Kew Bull. 1911, p. 416.

Chiengmai, in open deciduous jungle on Doi Sootep, 450 m., *Kerr*, 635.

Distr. Upper Burma, Tsegain Hills, *Griffith*, 3806 (Kew Distr.) ; Southern Shan States, Keng Tung, *MacGregor*, 556 (v.s. in herb. Calc.).

Tylophora asthmatica, *Wight et Arn.*—F.B.I., iv. p. 44 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 87.

Bangkok, *Schomburgk*, 173.

Distr. India, Burma, Assam, Malay Archipelago.

Tylophora fasciculata, *Ham.*—F.B.I., iv. p. 40.

Chiengmai, in deciduous jungle on Doi Sootep, 390 m., *Kerr*, 644.

Distr. S. Nepal, Khasia, Upper Burma, Concan.

Tylophora Kerrii, *Craib*, a *T. macrostachide*, Hook. f., cymis pedunculatis haud congestis, a *T. longifolia*, Wight, foliis angustioribus, floribus majoribus recedit.

Caules volubiles, monocarpici, ad 1·6 m. longi, bifacialiter, infra nodos ipsos praecipue, breviter puberuli, striati. *Folia* linearilanceolata, apice acuta, basi obtusa, 4·5–13 cm. longa, 0·3–1 cm. lata, chartacea, fere glabra, costa supra impressa subtus prominente, nervis lateralibus utrinque circiter 8 intra marginem arcuatis supra obscuris subtus prominulis nisi iis foliorum apices versus evanidis, nervis transversis obscuris. *Cymae* axillares, pedunculo communi ad 1·5 cm. longo suffultae, glabrae ; pedicelli usque ad 1 cm. longi, bracteis minutis. *Sepala* lanceolata, acuta, vix 2 mm. longa, ciliata. *Corollae* lobi oblongi, obtusi, circiter 6 mm. longi, 2·5 mm. lati, glabri. *Corona* e tuberculis 5 apice columnae staminali brevi adnatis basi gibbosis inter se liberis constituta.—*Craib*, Kew Bull. 1911, p. 417.

Chiengmai, in open jungle on Doi Sootep, 1350 m., *Kerr*, 704.

Tylophora purpurea, *Wall.*—F.B.I., iv. p. 41.

Chiengmai, in scrub jungle on Doi Sootep, 330 m., *Kerr*, 1446.

Distr. Burma, bank of Irrawaddy.

Tylophora sootepensis, *Craib*, ab affini *T. Augustiniana*, Craib, inflorescentia plerumque vix tam furcata, floribus majoribus, sepalis valde acutis recedit.

Herba volubilis, ramis striatis apices versus internodiorum bifacialiter parce piloso-pubescentibus. *Folia* ovato-lanceolata vel lanceolata, apice vix acuminata, basi cordata nisi juniora interdum rotundata vel obtuse cuneata, usque ad 17·5 cm. longa et 8 cm. lata, membranacea, costa supra parce pilosula excepta glabra, nervis lateralibus utrinque circiter 7 intra marginem arcuatis supra conspicuis subtus prominulis ; petioli usque ad 2·5 cm. longi, supra valde canaliculati, apice supra glandulis instructi. *Inflorescentia* e cymis plerumque sessilibus sed interdum pedunculatis unilateraliter

dispositis, usque ad 30 cm. longa ; pedicelli graciles, usque ad 1·2 cm. longi. *Sepala* ovato-lanceolata, acuta, 1·25 mm. longa, 0·75 mm. lata, glabra. *Corollae* albae tubus brevis, lobi ovato-elliptici, obtusi, oblique leviter emarginati, 4·5 mm. longi, 3 mm. lati, glabri. *Coronae* lobi columnae staminali adnati, basi gibbosi.—*Craib*, Kew Bull. 1911, p. 417.

Chiengmai, Doi Sootep, in evergreen jungle, 900 m., *Kerr*, 1310.

Owing to the flowers having been pressed quite flat it has been found impossible to give minute details of their structure, *e.g.*, in the case of the shape of the corona lobes.

There is no doubt but what this plant is closely allied to *Neohenrya Augustiniana*, Hemsl., but in the writer's opinion this plant is a *Tylophora* and should be named *Tylophora Augustiniana*, Craib.

Telosma minor, *Craib*, Kew Bull. 1911, p. 418, comb. nov. *Pergularia minor*, Andr.—F.B.I., iv. p. 38. *P. odoratissima*, Kurz, For. Fl. Burma, ii. p. 203, *non* Sm.

Bangkok, *Zimmermann*, 151.

Distr. India, Indo-China, China.

Telosma pallida, *Craib*, Kew Bull. 1911, p. 418, comb. nov. *Pergularia pallida*, Wight et Arn.—F.B.I., iv. p. 38 ; For. Fl. Burma, ii. p. 203 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 88 ; Hosseus, ii. p. 427.

Chiengmai, in scrub jungle, 300 m., *Kerr*, 1224.

Distr. India, Indo-China.

Heterostemma siamicum, *Craib*, ab *H. alato*, Wight, caulibus haud bifacialiter pubescentibus, foliis maturis basi alte cordatis, nervis subtus haud alatis, coronae lobis pro corollae magnitudine majoribus distinguenda.

Caules primo pilis ferrugineis patulis instructi, mox fere glabri. *Folia* oblonga, ovato-oblonga vel ovato-rotundata, basi juniora cuneata, matura alte cordata, apice cuspidata, acuta, 4–10 cm. longa, 1·7–7·5 cm. lata, chartacea, utrinque pilosula, margine integra, e basi 5-nervia, nervis secondariis (e costa ortis) utrinque 2–3 intra marginem arcuatis omnibus supra conspicuis subtus prominulis nervis transversis supra subconspicuis subtus vix prominulis ; petioli 2–8 cm. longi, supra valde canaliculati, apice glandulis paucis fasciculatis instructi. *Umbellae* axillares, pluriflorae, pedunculis 1·5–2 cm. longis suffultae ; pedicelli 1·5–2 cm. longi. *Sepala* late lanceolata, obtusa, circiter 1 mm. longa, extra parce adpresse pilosula, ciliata. *Corollae* luteae lobi ovato-lanceolati vel oblongo-lanceolati, apice breviter bifidi, 3·5 mm. longi, 2·5 mm. lati, extra pilosuli, intra pulverulento-tomentelli. *Coronae* lobi petaloidei, corollae adpressi, lanceolati, acuti, basi incrassati et appendiculati, 2 mm. longi—*Craib*, Kew Bull. 1911, p. 418.

Chiengmai, scandent on village hedgerow, 300 m., *Kerr*, 1324.

Hoya parasitica, *Wall.*—F.B.I., iv. p. 57.

Chiengmai, Doi Sootep, 330–660 m., *Kerr*, 1690.

Distr. India, Burma, Assam, Malay Peninsula.

Hoya Engleriana, *Hosseus*, Notizbl. Bot. Gart. Berl., No. 40, p. 315; Hosseus, ii. p. 427.

Described from a specimen in cultivation at Dahlem collected on Doi Sootep, 1580 m. by *Hosseus*.

Hoya Kerrii, *Craib*, ab *H. obovata*, Dene., cui affinis, foliis apice bilobis floribus fere duplo minoribus recedit.

Caulis scandens, glaber. *Folia* opposita, obovata vel orbiculata, apice biloba lobis rotundatis, basi late cuneata vel subrotundata, 4–12 cm. longa, 5–9·5 cm. lata, crasso-carnosa, utrinque glabra, marginibus revoluta; petioli 5–15 mm. longi, 5 mm. crassi. *Umbellae* 4–5 cm. diametro; pedunculus communis 2–3 cm. longus, 3 mm. crassus, glaber; pedicelli graciles, 1·3–1·8 cm. longi, puberuli. *Sepala* ovato-oblonga, obtusissima, 2·5 mm. longa, puberula et ciliata. *Corolla* cum lobis revolutis 9 mm. diametro, extra glabra, intra papillato-puberula, albida, disco rubro-tincta; lobi deltoideo-ovati, acuti, 4–5 mm. longi, 4 mm. lati, revoluto-reflexi. *Coronae* lobi crasso-carnosi, 2·5 mm. longi, acuti, dorso canaliculati, supra concavo-excavati cum tuberculo parvo in cavitate, rubrescentes.—*Craib*, Kew Bull. 1911, p. 418.

Chiengmai, in eng jungle on Doi Sootep, 390 m., *Kerr*, 1810.

A living plant sent by Dr. Kerr to the Trinity College Botanic Gardens, Dublin, which flowered there in August of the present year, differs from the wild specimens only in having a minute and scanty pubescence on the stem, peduncle and both sides of the leaf which may be due to change of climatic conditions.

Hoya siamica, *Craib*, ab *H. longifolia*, Wall., foliis latioribus haud in petiolos attenuatis, corona majore suberecta recedit.

Folia lanceolata, oblongo-lanceolata vel ovato-lanceolata, apice acutiuscula, basi obtusa, 3·7–9·5 cm. longa, 1·5–2·2 cm. lata, utrinque glabra, margine leviter recurvo, sicco coriacea, nervis omnino obscuris; petioli 0·5–1·5 cm. longi, glabri. *Umbellae* 10–14-florae, pedunculo 1–5 cm. longo glabro suffultae; pedicelli 2 cm. longi, glabri. *Sepala* parva, ovato-lanceolata, acuta, primo densius puberula. *Corolla* usque ad 1·5 cm. diametro, extra glabra, intra loborum apicibus acutis exceptis et praesertim marginem versus puberula. *Coronae* lobi suberecti, supra concavi sed medio umbone instructi, 3–3·5 mm. longi.—*Craib*, Kew Bull. 1911, p. 419.

Chiengmai, in evergreen jungle on Doi Sootep, 1500–1650 m., *Kerr*, 724.

Dischidia hirsuta, *Dene.*

Sriracha, Nawng Kaw, in evergreen jungle, 30 m., *Kerr*, 2062.

Distr. Lower Burma, Malaya, Philippines.

Dischidia nummularia, *Br.*—F.B.I., iv. p. 49.

Chiengmai, in deciduous jungle on Doi Sootep, 300–750 m., *Kerr*, 553.

Distr. Burma, Chittagong, Malaya, Australia.

Dischidia Rafflesiana, *Wall.*—F.B.I., iv. p. 50.

Chiengmai, in deciduous jungle on Doi Sootep, 300–600 m., *Kerr*, 624.

Distr. Burma, Assam, Malaya, Australia.

Dischidia singularis, *Craib*, a speciebus asiaticis foliorum forma facile distinguenda.

Planta epiphytica, corolla excepta glabra ; caules graciles, sicco viridescentes vel brunnescentes, irregulariter striati. *Folia* linearia sed paullo supra medium expansa, vel lanceolata, apice plerumque acuta, basi in petiolum plus minusve distinctum attenuata, 2·5–6·5 cm. longa, 0·3–2 cm. lata, margine revoluto, nervis obscuris. *Umbellae* pluriflorae, plerumque ad apices ramulorum brevium crassorum gestae ; pedicelli usque ad 1 mm. longi. *Sepala* parva, ovato-lanceolata, obtusa. *Corolla* urceolata, lobis exceptis glabra ; tubus 2 mm. longus, lobi lanceolati, acuti, 1·5 mm. longi, suberecti, crassi, extra glabri, intra lobo utroque pilorum alborum linea densa tubi os claudente et e basi paullo supra medium extensa instructo. *Coronae* lobi erecti, membranacei, subrotundati, distincte stipitati.—*Craib*, Kew Bull. 1911, p. 419.

Chiengmai, on trees in open jungle on Doi Sootep, 900–1200 m., *Kerr*, 1294, 1294*a*.

Brachystelma Kerrii, *Craib*, ab affini *B. eduli*, Coll. et Hemsl., caule elongato, internodiis elongatis facile distinguenda.

Herba perennis ; rhizoma tuberosum, sicco 2 cm. diametro ; caulis monocarpicus, simplex, erectus, gracilis, fere 5 dm. altus. *Folia* sparsa, angusta, acuta, 6–6·5 cm. longa, sessilia, glabra, costa sicco supra leviter impressa subtus prominula, nervis lateralibus omnino obscuris. *Inflorescentia* terminalis, pauciflora ; pedicelli 7 mm. longi, puberuli. *Calycis* lobi lanceolati, acuti, 1·5 mm. longi, glabri. *Corolla* atro-purpurea (ex *Kerr*) ; lobi late lanceolati, acutiusculi, marginibus recurvis, 5 mm. longi, 1·5 mm. lati, supra parce pilosi. —*Craib*, Kew Bull. 1911, p. 420.

Chiengmai, in deciduous jungle on Doi Sootep, 360 m., *Kerr*, 1273.

Up to the present there has been received at Kew only one specimen with one expanded flower, which unfortunately had been pressed too flat to allow a complete description being given.

Ceropegia sootepensis, *Craib*, ab affini *C. angustifolia*, Wight, foliis longioribus angustioribus vix petiolatis, umbellis subsessilibus recedit.

Herba scandens ; caules graciles, straminei, parcissime puberuli. *Folia* subsessilia, linearia vel anguste lineari-lanceolata, apice acuta, basi attenuata, 5–18 cm. longa, 1–9 mm. lata, chartacea, supra puberula vel fere scaberula, subtus fere glabra, margine integro revoluto. *Umbellae* axillares, pauciflorae, subsessiles ; bracteae parvae ; pedicelli usque ad 9 mm. longi, fere glabri. *Sepala* lanceolata, acuta, circiter 5 mm. longa. *Corolla* ad 5 cm. longa, basi ellipsoidea vel anguste ellipsoidea, medio constricta, lobis 2 cm. longis. *Coronae* exterioris lobi angusti, usque ad 1·5 mm. longi, interioris lobi eos exterioris duplo superantes.—*Craib*, Kew Bull, 1911, p. 420.

Chiengmai, in open deciduous jungle on Doi Sootep, 450 m., *Kerr*, 695.

Loganiaceae.

Mitreola oldenlandioides, *Wall.*—F.B.I., iv. p. 79.

Chiengmai, in mixed jungle on Doi Sootep, 330 m., *Kerr*, 1462.

Distr. India, Burma, Malaya, Australia.

Buddleia asiatica, *Lour.*—F.B.I., iv. p. 82 ; For. Fl. Burma, ii. p. 250 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 90 ; Hosseus, ii. p. 425.

Chiengmai, Doi Sootep, 300–800 m., *Kerr*, 546, *Hosseus*, 277, 453 ; Ban Salu, 300 m., *Hosseus*, 382.

Distr. India, S. China, Indo-China, Malaya.

Buddleia macrostachya, *Benth.* ?—F.B.I., iv. p. 81 ; Hosseus, ii. p. 425.

Doi Chieng Dao, 2180 m., *Hosseus*, 400.

Distr. Himalayas, Manipur, Khasia.

Strychnos nux-vomica, *Linn.*—F.B.I., iv. p. 90 ; For. Fl. Burma, ii. p. 166 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 90.

Chiengmai, in deciduous jungle on lower slopes of Doi Sootep, 300–600 m., *Kerr*, 603 ; Phre, 180 m., *Luang Vanpruk*, 197.

Distr. India, Burma.

Lao name, Tung Ton (ex *Luang Vanpruk*).

Strychnos Vanprukii, *Craib*, a *S. paniculata*, Champ., foliis multo majoribus, inflorescentia axillari brevi densa recedit.

Ramuli obscure tetragoni, circiter 2·5 mm. diametro, glabri, virides. *Folia* ovato-oblonga vel oblongo-elliptica, apice acuminata, basi late cuneata vel subrotundata, 13–17 cm. longa, 6–7 cm. lata, subcoriacea, laete viridia, utrinque glabra, tripli-nervata nervis ad apicem euntibus supra conspicuis subtus prominentibus et praeterea nervis duobus dilutis intramarginalibus e basi fere ad apicem instructa, nervis e costa ortis numerosis subparallelis pagina utraque conspicuis ; petioli vix 1 cm. longi, supra canaliculati, glabri. *Cymae* axillares, densae, breves, sessiles vel breviter pedunculatae ; pedicelli fere 2 mm. longi, bracteolis duobus calycis segmentis similibus instructi. *Calycis* circiter 1 mm. alti segmenta ovato-rotundata, brevissime obtuse acuminata, ciliolata. *Corollae* tubus 1·5 mm. longus, lobi oblongo-lanceolati, acutiusculi, circiter 2·5 mm. longi, 1·5 mm. lati, per anthesin recurvi, extra glabri, intra inferne pilosi. *Stamina* exserta, filamentis 1·25 mm. longis glabris, antheris 0·75 mm. longis glabris. *Ovarium* 1 mm. altum, cum stylo vix 2 mm. longo glabrum.—*Craib*, Kew Bull. 1911, p. 421.

Me Yuak Phre. 240 m., *Luang Vanpruk*, 234.

Gentianaceae.

Exacum pteranthum, *Wall.*—F.B.I., iv. p. 99.

Chiengmai, in mixed jungle on Doi Sootep, 390 m., *Kerr*, 1482.

Distr. Moulmein, Tavoy.

Exacum sutapense, *Hosseus*, ii. p. 426.

Chiengmai, Doi Sootep, 1650 m., *Kerr*, 1499, *Hosseus*, 194.

Exacum tetragonum, *Roxb.*—F.B.I., iv. p. 95; Hosseus, ii. p. 426.

Nakontai, 150 m., *Hosseus*, 724.

Distr. Himalayas, Khasia, China, Philippines.

Differs from typical *E. tetragonum* in its slightly broader leaves.

Canscora decussata, *Roem. et Sch.*—F.B.I., iv. p. 104.

Chiengmai, Doi Sootep, 420 m., *Kerr*, 1521.

Distr. India, Burma, Trop. Africa, Mascerene Islands.

Canscora diffusa, *Br.*—F.B.I., iv. p. 103; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 90; Hosseus, ii. p. 425.
Near Lakon, in deciduous jungle, 300 m., *Kerr*, 977; banks of Meh Ping, 400 m., *Hosseus*, 387.
Distr. India, China, Indo-China, Malaya, Australia, Trop. Africa.

Gentiana Hesseliana, *Hosseus*, Fedde Repert. Nov. Sp., ix. p. 465; Hosseus, ii. p. 426.
Pahombuk (ex *Hosseus*).
Distr. Upper Burma.

Swertia angustifolia, *Ham.*—F.B.I., iv. p. 125.
Chiengmai, Doi Sootep, in open grassy spots, 1500 m., *Kerr*, 885.
Distr. Himalayas.

Swertia Dielsiana, *Hosseus*, Fedde Repert. Nov. Sp., x. p. 63.
Chiengmai, Doi Sootep, 600 m. (ex *Hosseus*).

Swertia pulchella, *Ham.*—F.B.I., iv. p. 125.
Chiengmai, in deciduous jungle on Doi Sootep, 540 m., *Kerr*, 1494.
Distr. Himalayas, Khasia, China.

Limnanthemum indicum, *Thw.*—F.B.I., iv. p. 131; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 91.
Chiengmai, 300 m., *Kerr*, 1634.
Distr. S.E. Asia, Australia, Mascerene Is.

Hydrophyllaceae.

Hydrolea zeylanica, *Vahl*—F.B.I., iv. p. 133; Hosseus, ii. p. 428.
Bank of Meh Ping, between Raheng and Paknampo, 105 m., *Kerr*, 502; Ban Meh Kah, 195 m., *Kerr*, 912; Wang Djao, *Hosseus*, 125.
Distr. Tropics.

Boraginaceae.

Ehretia siamensis, *T. et B.*, Cat. Hort. Bog., 139, *nomen.*
Siam, *Teysmann*, anno 1868.
The material in Herb. Kew is too incomplete for diagnosis.

Ehretia sp., facie *E. hottentoticae*, Burch. similis.
Bangkok Palace Gardens, cultivated, *Murton*, 5.

Cordia Myxa, *Linn.*—F.B.I., iv. p. 136; For. Fl. Burma, ii. p. 208; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 92.
Bangkok, *Zimmermann*, 153.
Distr. Tropical and subtropical Africa, Asia, Australia—often cultivated.

Cordia subcordata, *Lamk.*—F.B.I., iv. p. 140; For. Fl. Burma, ii. p. 209.
Sriracha, by beach, *Kerr*, 2131.
Distr. Trop. Asia, Australia, Mascerene Is., E. Africa.

Coldenia procumbens, *Linn.*—F.B.I., iv. p. 144; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 92.
Chiengmai, 300 m., *Kerr*, 1885—paddy-field weed.
Distr. Tropical Asia and Africa.

Rhabdia lycioides, *Mart.*—F.B.I., iv. p. 145. *R. viminea*, Dalz. —For. Fl. Burma, ii. p. 211.
Banks of Meh Ping, Hue Sam Ngao, 140 m., *Hosseus*, 542.
Distr. Tropical Asia, Africa, America.

Tournefortia ovata, *Wall.*—F.B.I., iv. p. 147.
Between Lakon and Phre, near Ban Meh Tah, 300 m., *Kerr*, 997.
Distr. Burma, S. China.

Heliotropium indicum, *Linn.*—F.B.I., iv. p. 152; Hosseus, ii. p. 429.
Chiengmai, Doi Sootep, 300–400 m., *Hosseus*, 832, *Kerr*, 1845.
Distr. Tropical Asia, Africa, America.

Cynoglossum micranthum, *Desf.*—F.B.I., iv. p. 156.
Chiengmai, in deciduous jungle on Doi Sootep, 720 m., *Kerr*, 698.
Distr. S.E. Asia.

Convolvulaceae.

Argyreia capitata, *Arn.*—Prain, Journ. As. Soc. Beng., lxiii. p. 94. *Lettsomia capitata*, For. Fl. Burma, ii. p. 216, in part. *L. strigosa*, Roxb.—F.B.I., iv. p. 193, in part; Prain, l.c., p. 93.
Chiengmai, in scrub jungle 300 m., *Kerr*, 1548b.
Distr. Bengal, Assam, Burma, S. China, Cochinchina.

Argyreia Kerrii, *Craib*, ab *A. Thomsoni*, Craib (*Lettsomia Thomsoni*, Clarke), pedunculis brevioribus, sepalis vix hirsutis recedit.
Caules scandentes vel repentes, juventute densius albo-pubescentes. *Folia* ovata vel late ovata, apice breviter acuminata, acutissima, basi cordata, 4–19 cm. longa, 3·5–14 cm. lata, chartacea, supra pilis rigidis basi tuberculatis parce instructa, subtus subvillosa, nervis lateralibus utrinque circiter 12 intra marginem arcuatis sicco supra subprominulis subtus conspicuis; petioli ad 5 cm. longi, indumento ut caule. *Inflorescentia* axillaris, pluriflora, pedunculo communi vix 2 cm. longo suffulta; pedicelli ad 7 mm. longi; bracteae ovato-lanceolatae, acuminatae, ad 2 cm. longae, 0·7 cm. latae, extra pubescentes, intra parcissime pubescentes. *Sepala* subaequalia, oblongo-oblanceolata, obtusa, ad 1 cm. longa, 0·6 cm. lata, extra medio adpresse pubescentia. *Corolla* atro-purpurea (ex *Kerr*), anguste tubuloso-campanulata, 5 cm. longa, 1·7 cm. diametro, extra glabra. *Filamenta* basi parum dilatata, breviter pilosa.—*Craib*, Kew Bull. 1911, p. 422.
Chiengmai, in deciduous jungle on Doi Sootep, 300–330 m., *Kerr*, 761, 761b.

Argyreia obtusifolia, *Lour.* *A. obtecta*, C. B. Clarke, F.B.I., iv. p. 186; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 93.
Chiengmai, Doi Sootep, 600–1500 m., *Kerr*, 1384, 1384a.
Distr. Indo-China, Hong-Kong, Malay Peninsula.

Argyreia Roxburghii, *Choisy*, var. **siamica**, *Craib*, habitu *A. Roxburghii*, var. *amplae*, C. B. Clarke, similis sed sepalis exterioribus latioribus apice rotundatis distincta.—*Craib*, Kew Bull. 1911, p. 423.
Chiengmai, in scrub jungle, 300 m., *Kerr*, 1395.

Argyreia Wallichii, *Choisy*—F.B.I., iv. p. 187.

Chiengmai, in mixed jungle on Doi Sootep, 420–450 m., *Kerr*, 1481, 1481b.

Distr. Sikkim, Assam, Yunnan.

Argyreia sp. near *A. confusa*, Prain. *A. venusta*, Hosseus, i. p. 501 et ii. p. 428, *non* Choisy.

Wang Djao, 100–150 m., *Hosseus*, 116; Chiengmai, in deciduous jungle on Doi Sootep, 330 m., *Kerr*, 1976.

Blinkworthia lycioides, *Choisy*—Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 94, t. 15.

Chiengmai, on rocky ground on Doi Sootep, 390 m., *Kerr*, 643.

Distr. Upper Burma.

Ipomoea aquatica, *Forsk.*, var. reptans, *Williams*, Bull. Herb. Boiss., v. (1905) p. 438; Hosseus, i. p. 502.

Chiengmai, 300 m., *Kerr*, 893.

Distr. Tropics.

Ipomoea caespitosa, *O. Kze. I. linifolia*, Bl.—F.B.I., iv. p. 205. *Merremia caespitosa*, Hallier f.—Hosseus, i. p. 503 et ii. p. 428.

Near Raheng, 120 m., *Kerr*, 905; Wang Djao, *Hosseus*, 137.

Distr. S.E. Asia to Australia.

Ipomoea chryseides, *Ker*—F.B.I., iv. p. 206; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 95. *Merremia convolvulacea*, Hosseus, i. p. 503 et ii. p. 428. *M. hederacea*, Hosseus, i. p. 505?

Chiengmai, 300 m., *Kerr*, 1609b, *Hosseus*, 175—a garden weed (*Kerr*).

Distr. Tropics of Old World.

Ipomoea Henryi, *Craib*, ab *I. siamensi*, Craib, foliis lanceolatis recedit.

Caules scandentes, lignosi, parce adpresse setulosi. *Folia* late lanceolata, apice acutissima, basi rotundata, 14–20 cm. longa, 6–7 cm. lata, chartacea, supra costa nervisque setulosis exceptis glabra, subtus parce setulosa, nervis lateralibus utrinque 8–9 obliquis supra conspicuis subtus prominulis; petioli 3–5 cm. longi, parce setulosi. *Inflorescentia* axillaris, pedunculo communi 13–14·5 cm. longo suffulta; pedicelli 6–9 mm. longi, ut pedunculo parce adpresse hirsuti; bracteae bracteolaeque deciduae. *Sepala* duo exteriora ovato-triangularia, 4 mm. longa, 4 mm. lata, apice obtusa, extra parce adpresse hirsuta, interiora paullo majora parciusque hirsuta. *Corollae* tubuloso-infundibuliformis tubi pars basi aequalis 4 mm. longa, 3 mm. diametro, glabra, pars expansa 5 cm. longa, 1·7 cm. diametro, adpresse hirsuta. *Filamenta* 1·3 cm. longa, basi parum dilatata et pilosa.—*Craib*, Kew Bull. 1911, p. 423.

Chiengmai, Doi Sootep, 660 m., *Kerr*, 1489.

Distr. Yunnan, *Henry*, 13,387.

Ipomoea Nil, *Roth. I. hederacea*, Jacq.—F.B.I., iv. p. 199, pro parte.

Chiengmai, 300 m., *Kerr*, 1486.

Distr. Tropics and subtropics.

Ipomoea obscura, *Ker*—F.B.I., iv. p. 207 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 96.
Chiengmai, 300 m., *Kerr*, 1346—" a garden weed."
Distr. Trop. Asia, Africa, Australia.

Ipomoea paniculata, *Br. I. digitata*, Linn.—F.B.I., iv. p. 202.
Bangkok, *Schomburgk*, 322 ; Chiengmai, in scrub jungle, 330 m., *Kerr*, 1336.
Distr. Tropics.

Ipomoea pentadactylis, *Choisy. I. quinata*, F.B.I., iv. p. 214, in part.
Chiengmai, in deciduous jungle on Doi Sootep, 330 m., *Kerr*, 2256.
Distr. Taong Dong.

Ipomoea pes-tigridis, *Linn.*—F.B.I., iv. p. 204 ; Williams, Bull. Herb. Boiss., v. (1905) p. 439.
Chiengmai, in scrub jungle, 300 m., *Kerr*, 1962.
Distr. S.E. Asia, Trop. Africa.

Ipomoea petaloidea, *Choisy*—F.B.I., iv. p. 212 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 96. *I. xanthantha*, Kurz, For. Fl. Burma, ii. p. 219.
Muang Prow, Meh Ngat, in deciduous jungle, 420 m., *Kerr*, 1036.
Distr. Oudh, Burma, Malaya.
Lao name, Kreua Kou Kom (ex *Kerr*).

Ipomoea pileata, *Roxb.*—F.B.I., iv. p. 203.
Chiengmai, on grassy bank by stream, 330 m., *Kerr*, 1543b ; Sriracha, on old clearing, 150 m., *Kerr*, 2114.
Distr. India, Indo-China, S. China, Trop. Africa.

Ipomoea polyantha, *Miq.*, var. **affinis**, *C. B. Clarke*, F.B.I., iv. p. 206. *Merremia gemella*, Hosseus, i. p. 504. *M. umbellata*, Hosseus, i. p. 505.
Bangkok, *Zimmermann*, 83.
Distr. Bengal, Assam, Burma.

Ipomoea quinata, *Hosseus*, i. p. 502 et ii. p. 428, *an* Br. ?
Kau Phra Dang (ex *Hosseus*).
May be identical with the plant referred above to *I. pentadactylis*.

Ipomoea siamensis, *Craib*, floribus *I. popahensi*, Coll. et Hemsl., similis sed foliis ovatis vel ovato-rotundatis basi alte cordatis valde distincta.
Caules e radice perenni annui, procumbentes vel scandentes, pilis rigidiusculis patentibus vel plerumque reflexis instructi. *Folia* ovata vel ovato-rotundata, apice acuminata, acuta, basi alte cordata, 2·7–9·5 cm. longa, 2–8 cm. lata, tenuiter chartacea, ciliata, utrinque pauperrime setulosa, nervis lateralibus utrinque 4–7 pagina utraque conspicuis ; petioli 2–6·5 cm. longi, indumento ut caule. *Flores* axillares, solitarii, pedicellis circa 2 cm. longis suffulti. *Sepala* subaequalia, lanceolata, acuta, circiter 1 cm. longa, 2 mm. lata, extra hirsuta. *Corolla* anguste tubuloso-campanulata, purpurea et alba (ex *Kerr*), ad 6 cm. longa, 1·5 cm. diametro, extra longe parceque setosa.—*Craib*, Kew Bull. 1911, p. 424.
Chiengmai, Doi Sootep, in mixed jungle 330–420 m., *Kerr*, 1401.

Ipomoea umbellata, *Linn.*, var. **orientalis**, *Hallier f.*—Williams, Bull. Herb. Boiss., v. (1905) p. 438, et Hosseus, i. p. 504, ii. p. 428, sub *Merremia*. *I. cymosa*, R. & S.—F.B.I., iv. p. 211.
Near Doi Saket, Meh Kung, 420 m., *Kerr*, 1022 ; near Chiengmai, 300 m., *Hosseus*, 373 ; Siam, *Murton*, 4.
Distr. Tropics.

Ipomoea vitifolia, *Sweet*—F.B.I., iv. p. 213 ; For. Fl. Burma, ii. p. 219 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 97 ; Williams, Bull. Herb. Boiss., v. (1905) p. 962 ; Hosseus, i. p. 503.
Between Lakon and Phre, near Pang Pooey, 420 m., *Kerr*, 983 ; Raheng, Wang Djao, *Lindhard*, 74.
Distr. S.E. Asia.

Ipomoea sp. near *I. carnea*, Jacq. *I. sp.*, Hosseus, i. p. 502.
Bangkok, *Zimmermann*, 41—cultivated ?

Quamoclit pinnata, *Boj.* *Ipomoea Quamoclit*, Linn.—F.B.I., iv. p. 199 ; Hosseus, i. p. 502.
Chiengmai, 300 m., *Kerr*, 1347—"a garden weed" ; Bangkok, *Zimmermann*, 10.
Distr. Native of America—naturalised in S.E. Asia.
Lao name, Kaun Sa wun (ex *Kerr*).

Jacquemontia paniculata, *Hallier*. *J.* sp., Hosseus, i. p. 503, in part. *Convolvulus parviflorus*, Vahl—F.B.I., iv. p. 220 ; Williams, Bull. Herb. Boiss., v. (1905) p. 438 ; Hosseus, i. p 505.
Chiengmai, 300 m., in scrub jungle, *Kerr*, 1591b ; Bangkok, *Schomburgk*, 208, 299, *Zimmermann*, 21.
Distr. Trop. Asia, Australia, Africa.

Jacquemontia (?) sp. *J.* sp., Hosseus, i. p. 503, in part.
Bangkok, *Zimmermann*, 77.

Evolvulus alsinoides, *Linn.*—F.B.I., iv. p. 220 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 98.
Banks of Meh Ping near Raheng, *Kerr*, 503 ; Cape Liant, *Murton*, 39.
Distr. Tropics and subtropics.

Porana racemosa, *Roxb.*—F.B.I., iv. p. 222 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 99.
Chiengmai, in evergreen jungle on Doi Sootep, 1350–1650 m., *Kerr*, 2235.
Distr. N. India, Assam, Burma, China, Java.

Porana volubilis, *Burm.*—F.B.I., iv. p. 222 ; For. Fl. Burma, ii. p. 220 ; Hosseus, i. p. 501.
Bangkok, *Zimmermann*, 54.
Distr. India, Khasia, Manipur, Malaya.

Solanaceae.

Lycopersicum esculentum, *Mill.*—F.B.I., iv. p. 237.
Chiengmai, by a temple on Doi Sootep, 540 m., *Kerr*, 1252.
Native of Trop. America.
Lao name, Mă Keua Som (ex *Kerr*).

Solanum album, *Lour.*
Raheng, *Lindhard*, 37.
Var. **Gaudichaudii**, *Dunal*—Williams, Bull. Herb. Boiss., v. (1905) p. 439.
Bangkok, *Zimmermann*, 17.
The writer has seen no authentic material of either the species or the variety. Lindhard's plant was so named by C. B. Clarke and Zimmermann's was distributed under that name.

Solanum barbisetum, *Nees*—F.B.I., iv. p. 233. *S. involucratum*, Kurz, For. Fl. Burma, ii. p. 224 (*in clavi*) *non* Blume.
Chiengmai, Doi Sootep, in evergreen jungle, 1140 m., *Kerr*, 1862.
Distr. Sikkim, Assam, Burma, Ceylon.

Solanum ferox, *Linn.*—F.B.I., iv. p. 233 ; For. Fl. Burma, ii. p. 226, *excl.* var.
Chiengmai, on waste ground, 300 m., *Kerr*, 1236.
Distr. India, S.E. China, Indo-China, Malaya.

Solanum Melongena, *Linn.*—F.B.I., iv. p. 235 ; Williams, Bull. Herb. Boiss., v. (1905) p. 439, at least in part. *S. ferox*, Linn., var. *Trongum*, Kurz, For. Fl. Burma, ii. p. 226.
Chiengmai, on waste ground, 300 m., *Kerr*, 1237 ; Bangkok, *Schomburgk*, 217.
Distr. Tropics and subtropics.

Solanum nigrum, *Linn.*—F.B.I., iv. p. 229 ; For. Fl. Burma, ii. p. 224 (*in clavi*).
Chiengmai, on waste ground, 300 m., *Kerr*, 1231.
Distr. Widely spread in tropical and temperate countries.

Solanum Seaforthianum, *Andr.*
Sriracha, climbing on bushes by beach, *Kerr*, 2092.
Native of America.

Solanum torvum, *Swartz*—F.B.I., iv. p. 234 ; For. Fl. Burma, ii. p. 225 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 99 ; Williams, Bull. Herb. Boiss., v. (1905) p. 439 ; Hosseus, ii. p. 434.
Chiengmai, Doi Sootep, 660–900 m., *Kerr*, 1801, *Hosseus*, 475.
Distr. S.E. Asia, Trop. America.
Probably allied is *Zimmermann*, 25, which is destitute of flowers or fruit and which was referred by Williams to *S. Melongena*.

Solanum verbascifolium, *Linn.*—F.B.I., iv. p. 230; For. Fl. Burma, ii. p. 225 ; Hosseus, ii. p. 435.
Chiengmai, in scrub jungle, 300 m., *Kerr*, 1225 ; Ban Muang Gang (ex *Hosseus*).
Distr. Tropics.

Physalis minima, *Linn.*, var. ?
Chiengmai, 300 m., on waste ground, *Kerr*, 1956.
Distr. Tropics.

Datura Bojeri, *Del. ex Dunal.* *D. Metel*, Williams, Bull. Herb. Boiss., v. (1905) p. 439, *non* Linn.
Bangkok, *Zimmermann*, 109.
Distr. Japan, Sikkim, Trop. Africa—often cultivated ?

Mazus rugosus, *Lour.*—F.B.I., iv. p. 259; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 99.

Chiengmai, 300 m., *Kerr*, 1472—"a garden weed."

Distr. E. and S.E. Asia.

Lindenbergia macrostachya, *Benth.*—F.B.I., iv. p. 262; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 99; Williams, Bull. Herb. Boiss., v. (1905) p. 437. *L. siamensis*, Williams, l.c.

Bangkok, *Schomburgk*, 233. Siam, *Teysmann*.

Distr. Himalayas, China, Indo-China.

Lindenbergia philippensis, *Benth.*—F.B.I., iv. p. 261; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 99; Williams, Bull. Herb. Boiss., v. (1905) p. 437.

Between Lakon and Phre, near Ban Meh Tah, 300 m., *Kerr*, 986; Chiengmai, on old walls, 300 m., *Kerr*, 1692 (a dwarfed plant).

Distr. China, Indo-China, Malaya.

Lindenbergia urticaefolia, *Lehm.*—F.B.I., iv. p. 262; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 100; Hosseus, ii. p. 436.

Chiengmai, Doi Sootep, 300–720 m., *Kerr*, 923; banks of Meh Ping, 400 m., *Hosseus*, 388.

Distr. India, China, Indo-China.

Adenosma capitatum, *Benth.*—F.B.I., iv. p. 264; Williams, Bull. Herb. Boiss., v. (1905) p. 437.

Chiengmai, Doi Sootep, in deciduous jungle, 360 m., *Kerr*, 1431.

Distr. S.E. Asia.

Limnophila gracilipes, *Craib*, *L. hirsutae*, Benth., valde affinis sed foliis angustioribus semper oppositis, racemis longioribus, pedunculis pedicellisque longioribus et gracilioribus differt.—*Craib*, Kew Bull. 1911, p. 426; Hosseus, ii. p. 436 et Craib apud Hosseus, ii. p. 457.

Chiengmai, Doi Sootep, 330 m., *Kerr*, 1464; Doi Intanon, *Hosseus*, 333.

Very closely allied to *L. hirsuta*, but readily distinguished by its narrower leaves and its laxer, more graceful inflorescence.

Limnophila gratioloides, *Br.*—F.B.I., iv. p. 271; Hosseus, ii. p. 436 (*forma*).

Pitsanulok, Ban Jang, 120 m., *Hosseus*, 701.

Distr. Trop. Asia, Australia, Africa.

Limnophila hirsuta, *Benth.*—F.B.I., iv. p. 268; Hosseus, ii. p. 436.

Doi Intanon, 1150 m., *Hosseus*, 332.

Distr. S. E. Asia, Australia.

Limnophila pulcherrima, *Hook. f.*, F.B.I., iv. p. 267? *L. racemosa*, Hosseus, ii. p. 436, an Benth.?

Pitsanulok, Ban Jang, 120 m., *Hosseus*, 702.

Distr. Sikkim, Malaya.

This plant is closely allied to *L. diffusa*, Benth., and indeed may be only a form of that species. *Lindhard* 21, from Raheng named *L. diffusa*, by C. B. Clarke, is somewhat similar.

Limnophila Roxburghii, *G. Don*—F.B.I., iv. p. 265.
Chiengmai, in marshy ground by a stream on Doi Sootep, 330 m., *Kerr*, 1565b.
Distr. S. E. Asia, Pacific Islands.

Torenia cordifolia, *Roxb.*—F.B.I., iv. p. 276 ; Hosseus, ii. p. 437.
Chiengmai, Doi Sootep, 330 m., *Kerr*, 1354.
Distr. India, Burma, China, Java.

Torenia flava, *Ham.*—F.B.I., iv. p. 278.
Chiengmai, Doi Sootep, 330 m., *Kerr*, 1353.
Distr. China, Indo-China, Malaya.

Torenia oblonga, *Hance*—Hosseus, ii. p. 437. *Vandellia oblonga*, Benth.
Pitsanulok, Ban Jang, *Hosseus*, 706 (Herb. Hoss.!).
Distr. Hong Kong, Laos, Cochinchina.

Torenia parviflora, *Ham.*—F.B.I., iv. p. 278 ; Hosseus, ii. p. 437.
Wang Djao, *Hosseus*, 110 (Herb. Hoss.!).
Distr. Tropics.

Torenia sp.—Hosseus, ii. p. 437.
Between Wann Bao and Chieng Dao, 400 m. (ex *Hosseus*).

Vandellia capitata, *Bonati.*
Chiengmai, in deciduous jungle on Doi Sootep, *Kerr*, 1519.
Distr. Cochinchina : Baria.

Lindernia angustifolia, *Wettst.* *Vandellia angustifolia*, Benth.—F.B.I., iv. p. 282.
Chiengmai, 300 m., *Kerr*, 1470.
Distr. S. E. Asia.

Lindernia crustacea, *F. Muell.*—Williams, Bull. Herb. Boiss., v. (1905) p. 437 ; Hosseus ii. p. 436. *Vandellia crustacea*, Benth.—F.B.I., iv. p. 279 ; Hosseus, ii. p. 438.
Chiengmai, in mixed jungle on Doi Sootep, *Kerr*, 1333 ; Wang Djao, *Hosseus*, 126 ; Lem Liant, *Murton*, 30.
Distr. Tropics.

Lindernia hirsuta, *Wettst.—non* Williams, Bull. Herb. Boiss., v. (1905) p. 437. *Vandellia hirsuta*, Benth.—F.B.I., iv. p. 280.
Chiengmai, 300 m., *Kerr*, 1394—a garden weed.
Distr. S. E. Asia.
Schomburgk 203, quoted by Williams l.c. under this species consists of a mixture of *L. erecta* and *Bonnaya veronicaefolia*, var.

Lindernia pedunculata, *Wettst.* *Vandellia pedunculata*, Benth.—F.B.I., iv. p. 282 ; Hosseus, ii. p. 438.
Chiengmai, Doi Sootep, 330–1050 m., *Kerr*, 1358, 2304, *Hosseus*, 495, 808.
Distr. S. E. Asia.

Lindernia scabra, *Wettst.* *Vandellia scabra*, Benth.—F.B.I., iv. p. 281.
Chiengmai, Doi Sootep, 330 m., *Kerr*, 1250, 1359.
Distr. S. E. Asia, Trop. Africa, Madagascar.

Ilysanthes parviflora, *Roxb.*—F.B.I., iv. p. 283 ; Hosseus, ii. p. 435.
Chiengmai, rice-field weed (ex *Hosseus*) ; ? *Schomburgk*, 316.
Distr. India, Assam.

Bonnaya brachiata, *Link. et Otto*—F.B.I., iv. p. 284 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 100.
Chiengmai, in mixed jungle on Doi Sootep, 360 m., *Kerr*, 1334 ; Raheng, *Lindhard*, 25.
Distr. India, Indo-China, China, Malaya.

Bonnaya veronicaefolia, *Spr.*, var. **grandiflora**, *Hook. f.*, F.B.I., iv. p. 285.
Chiengmai, 300 m., *Kerr*, 1471.
Doubtfully separable as a variety from *B. veronicaefolia* which is widely distributed in S. E. Asia.

Scoparia dulcis, *Linn.*—F.B.I., iv. p. 289 ; Williams, Bull. Herb. Boiss., v. (1905) p. 438 ; Hosseus, ii. p. 437.
Chiengmai, 300 m., *Kerr*, 1342 ; Menam, *Hosseus*, 3 ; Raheng, *Lindhard*, 18.
Distr. Tropics.

Buchnera cruciata, *Ham.*—F.B.I., iv. p. 298 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 100 ; Williams, Bull. Herb. Boiss., v. (1905) p. 962 ; Hosseus, ii. p. 435.
Raheng, *Lindhard*, 8 ; Chiengmai, Doi Sootep, 400–600 m., *Hosseus*, 314 ; Ban Jang, 120 m., *Hosseus*, 708.
Distr. India, China, Indo-China, Malaya.

Striga lutea, *Lour.*—F.B.I., iv. p. 299 ; Williams, Bull. Herb. Boiss., v. (1905) p. 438 ; Hosseus, ii. p. 437.
Chiengmai, among grass in deciduous jungle on Doi Sootep, 300–720 m., *Kerr*, 740 ; Siam, *Murton*, 47.
Distr. S.E. Asia, Madagascar, Trop. Africa, Arabia.

Striga Masuria, *Benth.*—F.B.I., iv. p. 300 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 101 ; Hosseus, ii. p. 437.
Chiengmai, Doi Sootep, among grass in eng jungle, 300–600 m., *Kerr*, 741.
Distr. India, Burma, China, Philippines.

Rhamphicarpa longiflora, *Benth.*—F.B.I., iv. p. 300 ; Hosseus, ii. p. 437.
Ban Phra Dang, 120 m. (ex *Hosseus*).
Distr. Indian Peninsula.

Centranthera hispida, *Br.*—F.B.I., iv. p. 301 ; Hosseus, ii. p. 435.
Chiengmai, in eng jungle on Doi Sootep, 540 m., *Kerr*, 826 ; Wang Djao, *Hosseus*, 106.
Distr. S.E. Asia, Australia.

Sopubia trifida, *Ham.*—F.B.I., iv. p. 302 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 101.
Chiengmai, in open grassy jungle on Doi Sootep, 1350–1500 m., *Kerr*, 1512.
Distr. India, Burma, Assam, China, Philippines, Africa, Madagascar.

Orobanchaceae.

Aeginetia indica, *Roxb.*—F.B.I., iv. p. 320.
Chiengmai, in deciduous and evergreen jungle on Doi Sootep, 300–990 m., *Kerr*, 765, 1515.
Distr. S.E. Asia.

Aeginetia pedunculata, *Wall.*—F.B.I., iv. p. 320; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 101; Hosseus, ii. p. 438.
Chiengmai, in deciduous jungle on Doi Sootep, 540 m., *Kerr*, 1562*b*; Kau Phra Dang, 200 m. (ex *Hosseus*).
Distr. India, Burma, Assam, Malaya, Cambodia.

Lentibulariaceae.

Utricularia bifida, *Linn.*—F.B.I., iv. p. 332; Williams, Bull. Herb. Boiss., v. (1905) p. 432.
Chiengmai, Doi Sootep, 300 m., *Kerr*, 569.
Distr. S.E. Asia.

Utricularia bosminifera, *Ostenf.*, Fedde Rep. Nov. Sp., ii. (1906) p. 68.
Koh Chang, *Schmidt*, 704*a*.

Utricularia exoleta, *Br.*—F.B.I., iv. p. 329.
Chiengmai, Doi Sootep, 300 m., *Kerr*, 574.
Distr. S.E. Asia, Australia.

Utricularia flexuosa, *Vahl*—F.B.I., iv. p. 329; Williams, Bull. Herb. Boiss., v. (1905) p. 432; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 101.
Raheng, 126 m., *Kerr*, 505; Bangkok, *Schomburgk*, 314.
Distr. S.E. Asia, Australia.

Utricularia furcellata, *Oliver*, Journ. Linn. Soc., iii. p. 189. *U. furcellata*, var. *minor*, C. B. Clarke, F.B.I., iv. p. 334.
Chiengmai, among damp moss on rocks on Doi Sootep, 1350 m., *Kerr*, 787.
Distr. Sikkim, Khasia.

Utricularia hirta, *Klein*—F.B.I., iv. p. 332.
Chiengmai, Doi Sootep, 480–720 m., *Kerr*, 922.
Distr. Khasia, Chota Nagpur.

Utricularia Kerrii, *Craib*, ab *U. rosea*, Edgew., calcare quam labium inferum longiore distinguenda.
Herba erecta, 14–29 cm. alta. *Folia* per anthesin deficientia. *Scapus* strictus, plerumque simplex, flores 4 saltem gerens, squamis parvis medio affixis parce instructus; pedicelli circiter 1 mm. longi; bracteae medio affixae, utrinque acutae. *Calycis* segmentum inferum obovato-rotundatum, apice rotundatum, 2·5 mm. longum, superum quam inferum paullo brevius, acutiusculum, amba extra minute puberula. *Corollae* fusco-purpureae labium superum obovato-ellipticum, emarginatum, 4 mm. longum, inferum refractum, apice truncato-emarginatum, 5 mm. longum; calcar 6 mm. longum, robustum, apice obtusiusculum; corollae partes omnes extra minute puberulae.—*Craib*, Kew Bull. 1911, p. 429.
Chiengmai, in open marshy ground on Doi Sootep, 720 m., *Kerr*, 918.

Utricularia racemosa, *Wall.*—F.B.I., iv. p. 333.
Chiengmai, at foot of Doi Sootep, 300 m., *Kerr*, 570.
Distr. India, Assam, Burma, China.

Utricularia siamensis, *Ostenf.*, Fedde Rep. Nov. Sp., ii. (1906) p. 68.
Koh Chang, *Schmidt*, 704.

Utricularia sootepensis, *Craib*, ab *U. filicauli*, Wall., calcare robusto recedit.
Herba terrestris, erecta, 4·5–8 cm. alta. *Folia* per anthesin rarissime deficientia, spatulata vel lineari-spatulata, 2–3 mm. longa, petiolo usque ad 3 mm. longo suffulta. *Utriculae* minutae, sparsae, globosae vel ellipsoideae. *Flores* terminales, solitarii vel 2–3 racemose dispositi ; bracteae parvae, medio fixae, utrinque acutae. *Sepala* subaequalia, vix 2 mm. longa. *Corollae* purpureae labium superum 1·5 mm. longum, inferum apice emarginatum, 1·75 mm. longum ; calcar late conicum, superne subito contractum, apice obtusum, 3 mm. longum.—*Craib*, Kew Bull. 1911, p. 430.
Chiengmai, in eng jungle on Doi Sootep, 540 m., *Kerr*, 793.

Utricularia striatula, *Sm. U. orbiculata*, Wall.—F.B.I., iv. p. 334 ; Williams, Bull. Herb. Boiss., v. (1905) p. 433.
Chiengmai, on rocks and fallen tree trunks on Doi Sootep, 690–750 m., *Kerr*, 1418.
Distr. S.E. Asia.

Utricularia *sp. n.*
Pitsanulok, 120 m., *Hosseus*, 711.

Gesneraceae.

Aeschynanthus acuminata, *Wall.*—F.B.I., iv. p. 341.
Chiengmai, covering trunks of trees in swamp jungle on Doi Sootep, 900 m., *Kerr*, 2302.
Distr. Sikkim, Assam.

Aeschynanthus macrocalyx, *Hosseus*, Notizbl. Bot. Gart. Berl., iv. (1907) p. 314, cum tab. ; Hosseus, ii. p. 439.
Chiengmai, in dense evergreen jungle on Doi Sootep, 1560 m., *Kerr*, 1997.
Described from a specimen which flowered in Berlin Botanic Garden and which was introduced from Doi Sootep by Hosseus.

Aeschynanthus persimilis, *Craib*, habitu *A. humili*, Hemsl., persimilis sed sepalis plerumque altius connatis, corolla intus haud papillata distinguenda.—*Craib*, Kew Bull. 1911, p. 430. *A. humilis*, Hosseus, ii. p. 438, *vix* Hemsl.
Chiengmai, Doi Sootep, 1350–1650 m., *Kerr*, 515, *Hosseus*, 197.
In habit the Siam plant is very similar to the Yunnan *A. humilis*, differing from it chiefly in the want of the papillae on the inside of the corolla. Further collections of the Yunnan plant may prove that the Siam plant should be regarded rather as a variety or form.

Lysionotis serrata, *Don*—F.B.I., iv. p. 344.
Chiengmai, on rocks in open jungle and on trees in evergreen jungle, 1350–1500 m., *Kerr*, 791, 1376.
Distr. Himalayas, Assam, Burma, China.

Rhynchoglossum obliquum, *Blume*—F.B.I., iv. p. 367 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 101 ; Hosseus, ii. p. 439.

Chiengmai, on rocks by stream on Doi Sootep, 690 m., *Kerr*, 1424 ; Wang Djao, *Hosseus*, 97 ; Meh Ping Rapids, Fa Man, in crevices of damp rocks, 180 m., *Kerr*, 2193.

Distr. S.E. Asia.

Didymocarpus aureo-glandulosa, *C. B. Clarke*, Fedde Rep. Nov. Sp., iv. p. 292 ; Hosseus, ii. p. 439.

Chiengmai, Doi Sootep (ex *Clarke*).

Didymocarpus (Eudidymocarpus) Kerrii, *Craib*, *D. aureo-glandulosae*, C. B. Clarke, affinis sed foliis formae diversae supra haud argenteo-sericeis distincta.

Herba perennis, subacaulis vel caulescens, 4–21 cm. alta. *Folia* orbicularia, late elliptica, oblonga vel suprema ovata, apice rotundata vel obtusa, basi cordata, subcordata vel obtusa, 1–4·5 cm. longa, 1–4 cm. lata, chartacea vel rigide chartacea, margine crenata vel crenato-serrata, supra densius breviter pilosa, subtus aureo-glandulosa et praeterea costa nervisque pilosa, cetera fere glabra, nervis lateralibus utrinque circiter 6 supra subobscuris subtus prominulis ; petioli 0·4—5 cm. longi, ut caule pilosi et parce aureo-glandulosi. *Inflorescentia* terminalis, pluriflora, superne parce glanduloso-pilosa, cetera glabra. *Calyx* tubuloso-campanulatus, 0·5 cm. longus, 0·3 cm. diametro, glaber, lobis parvis. *Corolla* paullo supra medium geniculata, 2 cm. longa, parte tubulosa 2·5 mm. diametro, apice 1 cm. diametro, glabra. *Filamenta* 2 mm. longa. *Ovarium* 1 cm. altum, cum stylo 3 mm. longo glabrum.—*Craib*, Kew Bull. 1911, p. 431.

Chiengmai, on rocks in open jungle on Doi Sootep, 1350 m., *Kerr*, 786.

Didymocarpus (Eudidymocarpus) purpureo-picta, *Craib*, affinis *D. stenanthei*, C. B. Clarke, sed calyce multo majore facile distinguenda.

Herba 14–21 cm. alta ; caulis simplex, pilosus et parcissime aureo-glandulosus. *Folia* oblonga, ovato-elliptica vel subrotunda, basi inaequalia, obtuse cuneata vel cordata, 3·5–10 cm. longa, 2·5–7·5 cm. lata, tenuiter chartacea, crenata vel crenato-serrata, supra pilosa, subtus costa nervisque praecipue pilosa praetereaque parce aureo-glandulosa, nervis lateralibus utrinque circiter 6 pagina utraque conspicuis ; petioli 1–11 cm. longi, pilosi. *Bracteae* 4 mm. longae, 6 mm. latae. *Calyx* campanulatus, 4 mm. longus, 5 mm. diametro, glaber, lobis parvis apice rotundatis. *Corolla* 2 cm. longa, glabra, parte cylindracea ½ mm. diametro parte suprema expansa 1 cm. diametro. *Filamenta* 2·5 mm. longa, glabra. *Ovarium* glabrum, 8 mm. altum, stylo glabro 3 mm. longo.—*Craib*, Kew Bull. 1911, p. 431.

Chiengmai, Doi Sootep, on rocks by a stream, 750 m., *Kerr*, 1414.

Chirita anachoreta, *Hance*.

Chiengmai, Doi Sootep, on rocks by streams, 690 m., *Kerr*, 1417.

Distr. Canton, Yunnan.

Chirita brevipes, *C. B. Clarke*—F.B.I., iv. p. 359.

Chiengmai, Doi Sootep, in evergreen jungle, 900 m., *Kerr*, 1164.

Distr. Khasia, Yunnan.

Chirita hamosa, *R. Br.*—F.B.I., iv. p. 360.

Chiengmai, Doi Sootep, 450–720 m., *Kerr*, 897, 1422.

Distr. India, Indo-China, Yunnan.

Streptocarpus orientalis, *Craib*, ab affini *S. Helsenbergii*, R. Br., caule vix glabrescente, foliis majoribus vix acutis, capsula graciliore recedit.

Herba erecta, 1·5–4 dm. alta ; caules solitarii, foliosi, usque ad inflorescentiam simplices, plus minusve, sed inferne nodosque prope densius, glanduloso-pilosi. *Folia* plerumque ovata vel elliptico-ovata, apice obtusa vel rotundata, basi interdum inaequalia, cuneata, 2·5–9 cm. longa, 2–7 cm. lata, membranacea, margine crenata vel crenato-serrata, utrinque pilosa, nervis lateralibus utrinque 4–5 subtus prominulis ; petioli 0·5–5 cm. longi, indumento ut caule. *Pedicelli* ad 3 cm. longi, breviter parce glanduloso-pilosi. *Calycis* segmenta lanceolata vel lineari-lanceolata, circiter 4 mm. longa, 0·75 mm. lata, indumento dorso ut pedicellis. *Corolla* purpurea (ex *Kerr*), circiter 4 cm. longa, apice 1 cm. diametro, extra parce pilosula. *Filamenta* 8 mm. longa, glabra. *Ovarium* 1·6 cm. altum, cum stylo 9 mm. longo glanduloso-pubescens. *Capsula* ad 5 cm. longa, 2 mm. diametro.—*Craib*, Kew Bull. 1911, p. 432.

Chiengmai, on rocks near a stream on Doi Sootep, 540 m., *Kerr*, 769.

The genus *Streptocarpus* has not, so far as the writer is aware, yet been recorded from Eastern Asia. The plant described above belongs to the section *Caulescentes* of Fl. Trop. Afr., iv. p. 504.

Bignoniaceae.

Millingtonia hortensis, *Linn. f.*—F.B.I., iv. p. 377 ; For. Fl. Burma, ii. p. 238 ; Hosseus, ii. p. 438.

Banks of Meh Ping, *Hosseus*, 168 ; near Raheng, 120 m., near a village, *Kerr*, 2167 ; Phre, *Luang Vanpruk*, 134.

Distr. India, Malaya.

Lao name, Mai Pip (ex *Kerr*).

Oroxylon indicum, *Vent.*—F.B.I., iv. p. 378 ; For. Fl. Burma, ii. p. 237 ; Hosseus, ii. p. 438.

Chiengmai, Doi Sootep, 800 m. (ex *Hosseus*).

Distr. India, Assam, Malaya, Philippines, Mauritius.

Dolichandrone Rheedei, *Seem.*—F.B.I., iv. p. 379. *Spathodea Rheedei*, Wall.—For. Fl. Burma, ii. p. 234.

Paknampo, *Witt*, 15.

Distr. India, Malaya, Polynesia.

Markhamia stipulata, *Seem.* ? *Dolichandrone stipulata*, Benth.—F.B.I., iv. p. 379. *Spathodea stipulata*, Wall.—For. Fl. Burma, ii. p. 234.

Lakon, near Hang Sut, in deciduous jungle, 360 m., *Kerr*, 1013.

Distr. Burma.

Lao name, Kaa Hua Moo (ex *Kerr*).

The indumentum of the fruit is rather that of *M. cauda-felina* but the seeds and flower are of *M. stipulata*.

Stereospermum chelonoides, *DC.*—F.B.I., iv. p. 382; For. Fl. Burma, ii. p. 230; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 102.

Chiengmai, Doi Sootep, 600 m., *Kerr*, 1167.

Distr. India, Burma, Yunnan, Java (?), Trinidad (cult.).

Stereospermum neuranthum, *Kurz*—F.B.I., iv. p. 382; For. Fl. Burma, ii. p. 230.

Chiengmai, in deciduous jungle on Doi Sootep, 840 m., *Kerr*, 1128.

Distr. Burma.

The indumentum of the calyx is not so dense as in Kurz's type specimens but is exactly that of Parish's Moulmein plants.

Radermachera *sp. n.*

Bangkok, Legation Garden, *Paget*.

A very distinct plant on account of its densely warted calyx but unfortunately not sufficiently represented for description.

Pedalineae.

Sesamum indicum, *DC.*—F.B.I., iv. p. 387; For. Fl. Burma, ii. p. 249, *in nota*.

Chiengmai, on waste ground by a village on Doi Sootep, 330 m., *Kerr*, 1936.

Distr. Tropics—often cultivated.

Martyniaceae.

Martynia annua, *Linn.* *M. diandra*, Glox.—F.B.I., iv. p. 386, *in nota*.

Chiengmai, on waste ground, 300 m., *Kerr*, 779.

Introduced from Trop. America.

Acanthaceae.

Thunbergia similis, *Craib*, a *T. fragrante*, Roxb., foliis integris basi cuneatis vel obtusis breviter petiolatis distinguenda.

Herba repens vel scandens; caules monocarpici, quadrangulares, pilis reflexis rigidiusculis parce instructi. *Folia* infima ellipticolanceolata, suprema lanceolata, apice obtusa vel acutiuscula, apiculata, basi plerumque cuneata vel obtusa, 1·8–8 cm. longa, 1–3·1 cm. lata, rigide chartacea, supra pilis paucis rigidis scabridula, subtus fere glabra, margine integra, nervis lateralibus utrinque 4–6 intra marginem arcuatis duobus basalibus valde obliquis utrinque subprominulis, petiolis circiter 0·5 cm. longis suffulta. *Flores* albi, axillares, gemini, pedicellis vix 3 cm. attingentibus suffulti; bracteolae sub anthesin liberae, oblongo-lanceolatae, apice acutae, 1·1–1·4 cm. longae, 0·5 cm. latae, dorso parce pubescentes et apices versus pauci-ciliatae. *Calycis* lobi lanceolati vel late lanceolati, acuti, breviter pilosuli. *Corollae* albae tubus 2·2 cm. longus, 2·5 mm. diametro, superne parce pubescens, lobi obcordati, 1·8 cm longi, 1·8 cm. lati, ciliati. *Antherae* 3 mm. longae, connectivo apice producto.—*Craib*, Kew Bull. 1911, p. 434.

Chiengmai, Doi Sootep, 300–900 m., *Kerr*, 753; Sriracha, Nawng Kaw, 30 m., *Kerr*, 2088?

Thunbergia Hossei, *C. B. Clarke apud Hosseus*, Engler Bot. Jahrb., xli. p. 64 ; Hosseus, ii. p. 444.

Chiengmai, Doi Sootep, 660–700 m., *Hosseus*, 276, *Kerr*, 513.

Distr. Upper Burma, Ruby Mines, *Lace*, 5220.

Thunbergia laurifolia, *Lindl.*—F.B.I., iv. p. 392 ; For. Fl. Burma, ii. p. 240 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 103 ; Hosseus, Engler Bot. Jahrb., xli. p. 64 ; Hosseus, ii. p. 444.

Between Lakon and Phre, near Ban Meh Tah, 300 m., *Kerr*, 987.

Distr. Malay Peninsula N. to Arracan.

Lao name, Dauk Nam Naa (ex *Kerr*).

Staurogyne obtusa, *O. Kze.*—Hosseus, ii. p. 443. *Ebermaiera obtusa*, T. And.—F.B.I., iv. p. 401. *Dracocephalum longipedicellatum*, Muschler, Fedde Rep. Nov. Sp., iv. p. 269.

Meh Ping, Chieng Dao, in evergreen jungle, 420 m., *Kerr*, 1054 ; between Wann Bao and Chieng Dao, 450 m., *Hosseus*, 464.

Distr. Mergui, Moulmein.

The Siamese plant is somewhat different from the Burmese in its slightly denser racemes and rather larger flowers and leaves.

Staurogyne setigera, *O. Kze. Ebermaiera setigera*, Nees—F.B.I., iv. p. 398. *E. subcapitata*, C. B. Clarke, Bot. Tidsskr., xxiv. p. 348 ; Hosseus, Engler Bot. Jahrb., xli. p. 65.

Koh Chang, *Schmidt*, 271.

Distr. Malaya.

Staurogyne siamensis, *C. B. Clarke*, Bull. Herb. Boiss., v. (1905) p. 716 ; Williams, Bull. Herb. Boiss., v. (1905) p. 962 ; Hosseus, Engler Bot. Jahrb., xli. p. 65.

Raheng, *Lindhard*, 25.

Ophiorrhiziphyllon macrobotryum, *Kurz*—F.B.I., iv. p. 403.

Chiengmai, in dense evergreen jungle on Doi Sootep, 1650 m., *Kerr*, 1678.

Distr. Burma.

Nelsonia campestris, *Br.*—F.B.I., iv. p. 394 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 103 ; Hosseus, Engler Bot. Jahrb., xli. p. 64 ; Hosseus, ii. p. 442.

Pang Pooey, 420 m., *Kerr*, 982 ; Doi Kum, 360 m., *Kerr*, 1657 ; Chiengmai, 300 m., *Hosseus*, 443 ; Doi Sootep, 1050 m., *Hosseus*, 490.

Distr. S.E. Asia, Australia, Africa, America.

The plants quoted above belong to the large leaved form (*N. vestita*, R. & S., *Justicia tomentosa*, Roxb.). The plant collected at Bangkok by Schomburgk (No. 192) belongs rather to the typical form as enumerated by Williams, Bull. Herb. Boiss., v. (1905) p. 435.

Cardanthera avana, *Benth.*—F.B.I., iv. p. 405 ; Hosseus, Engler Bot. Jahrb., xli. p. 65 ; Hosseus, ii. p. 440.

Chiengmai, 300 m., *Hosseus*, 176, *Kerr*, 2298.

Distr. Burma.

Hygrophila phlomoides, *Nees*—F.B.I., iv. p. 408 ; Williams, Bull. Herb. Boiss., v. (1905) p. 962 ; Hosseus, Engler Bot. Jahrb., xli. p. 65.

Chiengmai, 300 m., *Kerr*, 1628b—a rice-field weed ; Raheng, *Lindhard*.

Distr. Sikkim, Assam, Burma, Tonkin, Malaya.

Hygrophila quadrivalvis, *Nees*—F.B.I., iv. p. 408. *H. angustifolia*, var. *quadrivalvis*, Williams, Bull. Herb. Boiss., v. (1905) p. 435 ; Hosseus, Engler Bot. Jahrb., xli. p. 65. *H. angustifolia*, var. *assurgens*, Williams, l.c., p. 435 ; Hosseus, l.c., p. 65.

Chiengmai, in irrigation ditches, 300 m., *Kerr*, 2283 ; Bangkok, *Zimmermann*, 81.

Distr. India, Burma, Malaya, Tonkin, S. China.

Calophanes Nagchana, *Nees*—F.B.I., iv. p. 410.

Doi Noi, in deciduous jungle, 300 m., *Kerr*, 2208 ; Chiengmai, in mixed jungle on Doi Sootep, 330 m., *Kerr*, 2266.

Distr. India, Ceylon.

Ruellia macrosiphon, *Kurz*—F.B.I., iv. p. 413.

Chiengmai, in deciduous jungle, *Kerr*, 1854—"flowers white, opening at night."

Distr. Burma.

Ruellia repens, *Linn.*—F.B.I., iv. p. 412.

Ban Tak, 120 m., *Kerr*, 2170 ; Bangkok, *Schomburgk*, 200.

Distr. Burma, Malaya, Philippines.

Ruellia tuberosa, *Linn.*

Bangkok, *Kerr*, 2151—a roadside weed.

Native of Tropical America.

Ruellia sp.

Ban Na Gorge, 135 m., in bamboo jungle, *Kerr*, 2175.

Phaylopsis parviflora, *Willd.*—F.B.I., iv. p. 417 ; Hosseus, Engler Bot. Jahrb., xli. p. 68 ; Hosseus, ii. p. 442.

Chiengmai, 300 m., *Kerr*, 1611b—a garden weed.

Distr. India, Indo-China, Madagascar, Tropical Africa.

Daedalacanthus tetragonus, *T. And.*—F.B.I., iv. p. 420 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 103 ; Williams, Bull. Herb. Boiss., v. (1905) p. 962 ; Hosseus, Engler Bot. Jahrb., xli. p. 68 ; Hosseus, ii. p. 440.

Chiengmai, Doi Sootep, 660–900 m., *Kerr*, 948 ; between Wann Bao and Chieng Dao, 400 m., *Hosseus*, 389 ; Raheng, between Long Ison and Nong Boa, *Lindhard*, 52.

Distr. Burma.

Hemigraphis glaucescens, *C. B. Clarke*, F.B.I., iv. p. 425.

Chiengmai, in mixed jungle at foot of Doi Sootep, 330 m., *Kerr*, 2297—"flowers mauve with purple veins."

Distr. Burma.

Hemigraphis quadrifaria, *T. And.*—F.B.I., iv. p. 425 ; Hosseus, Engler Bot. Jahrb., xli. p. 66 ; Hosseus, ii. p. 441.

Chiengmai, in mixed jungle on Doi Sootep, 540–660 m., *Kerr*, 1542*b*, 1542*c*.

Distr. Burma.

Hemigraphis Schomburgkii, *Craib*, ab *H. flava*, Kurz, foliis lanceolatis facile distinguenda.

Folia lanceolata, apice acuminata, basi in petiolum brevem attenuata, 5·5–12·5 cm. longa, 1–2 cm. lata, rigide chartacea, utrinque glabra et lineolata sed pagina superiore quam inferiore densius lineolata, margine integro recurvo, nervis lateralibus utrinque

6–7 pagina utraque prominulis nervis transversis supra subprominulis. *Capitula* et terminalia et ramulos breves axillares terminantia, 1·5–2 cm. longa, 1·5 cm. diametro, pluriflora; bracteae ovato-lanceolatae, obtusiusculae, 1·2 cm. longae, 0·6 cm. latae, utrinque puberulae et extra inferne pilosae, ciliatae, nervis distinctis; bracteolae parvae, lanceolatae, acutae, pilosae. *Calycis* segmenta linearilanceolata, acutiuscula, 1 cm. longa, 1·5 mm. lata, extra puberula, intra adpresse albo-pubescentia, ciliata, superne longe ciliata. *Corolla* tubuloso-campanulata, circiter 2·5 cm. longa, apice 1 cm. diametro, extra parce pilosula, intra dorso praecipue longe pilosa; lobi 5, subaequales, rotundati. *Filamenta* longiora valde barbata, breviora parce pilosa. *Ovarium* glabrum, 8-ovulatum; stylus parce pubescens.—*Craib*, Kew Bull. 1911, p. 435. *H. flava*, Williams, Bull. Herb. Boiss., v. (1905) p. 436, *non* Kurz.

Bangkok, *Schomburgk*, 145.

Strobilanthes anfractuosus, *C. B. Clarke apud Hosseus*, Engler Bot. Jahrb., xli. p. 66; Hosseus, ii. p. 443.

Doi Intanon, 1150 m., *Hosseus*, 336.

Strobilanthes consors, *C. B. Clarke apud Hosseus*, Engler Bot. Jahrb., xli. p. 66; Hosseus, ii. p. 443.

Chiengmai, Doi Sootep, 1500–1680 m., *Hosseus*, 256, *Kerr*, 2279, 2279a; Muang Fang (ex *Clarke*).

Strobilanthes erectus, *C. B. Clarke apud Hosseus*, Engler Bot. Jahrb., xli. p. 67; Hosseus, ii. p. 443 (*excl.* plant quoted).

Doi Chieng Dao (ex *Clarke*).

Strobilanthes Hossei, *C. B. Clarke apud Hosseus*, Engler Bot. Jahrb., xli. p. 67; Hosseus, ii. p. 443.

Doi Intanon, 1600 m., *Hosseus*, 339.

Strobilanthes imbricatus, *Nees*—F.B.I., iv. p. 455; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 104.

Chiengmai, Doi Sootep, in evergreen jungle, 1500 m., *Kerr*, 884.

Distr. Burma.

Strobilanthes Kerrii, *Craib*, a *S. multidente*, C. B. Clarke, foliis brevius obtuse acuminatis crenato-serratis vel obsolete crenato-serratis recedit.

Suffrutex circiter 9 dm. altus; caules crispatim pubescentes, demum puberuli. *Folia* ovato-lanceolata vel elliptica, inaequilatera, apice acuminata, obtusa, basi latere altero rotundato altero cuneato, conspicue inaequalia, majora 5·5–16 cm. longa, 2·5–8·3 cm. lata, minora saepe decidua, ad 4·5 cm. longa, chartacea, supra lineolata, costa nervisque adpresse crispatim pubescentia, subtus pallidiora, molliter pubescentia, crenato-serrata vel obsolete crenato-serrata, nervis lateralibus utrinque ad 7 supra conspicuis subtus prominulis, nervis transversis satis distantibus pagina utraque conspicuis: petioli foliorum majorum ad fere 2 cm. longi, minorum circiter 5–7 mm. longi, crispatim pubescentes. *Spicae* capituliformes, axillares, longius pedunculatae; bracteae ovatae vel oblongae, 0·5–1·1 cm. longae, 3·5–4·5 mm. latae, extra et apicem versus intra hirsutae; bracteolae lineari-oblanceolatae, acutiusculae, 7 mm. longae, 1·5 mm. latae. *Sepala* 5, subaequalia, lineari-oblanceolata, obtusiuscula,

circiter 1 cm. longa et 1·75 mm. lata, superne dense subferrugineo-glanduloso-pilosa. *Corolla* purpurea (ex *Kerr*), 4·7 cm. longa, parte basali aequali circiter 1·7 cm. longa et 1·5 mm. diametro, parte expansa 1·2 cm. diametro, lobis oblongis. *Stamina* 5. *Ovarium* 2 mm. altum apice glandulosum ; stylus inferne parce glanduloso-pubescens.

Phre, Hooey Kamin, by streams, 300 m., *Kerr*, 988.

Strobilanthes lilacinus, *C. B. Clarke apud Hosseus*, Engler Bot. Jahrb., xli. p. 67 ; Hosseus, ii. p. 443.

Doi Chieng Dao, 2160 m., *Hosseus*, 402a.

Strobilanthes pentstemonoides, *T. And.*—F.B.I., iv. p. 460 ; Hosseus, Engler Bot. Jahrb., xli. p. 67 ; Hosseus, ii. p. 444.

Chiengmai, Doi Sootep, 600–1680 m., *Hosseus*, 244, *Kerr*, 935, 1568a, 1568b.

Distr. Nepaul, Bhotan, China.

Kerr 935 does not match any of the Indian specimens referred to this species but appears to be rather a well marked form with narrow and more rigid leaves.

Strobilanthes rex, *C. B. Clarke apud Hosseus*, Engler Bot. Jahrb., xli. p. 68 ; Hosseus, ii. p. 444.

Doi Intanon, 2500 m., *Hosseus*, 352.

Strobilanthes (Buteraea) rubro-glandulosus, *Craib*, a *S. acuminato*, Wall., foliis ovatis vel ovato-lanceolatis crasse irregulariter crenatis recedit.

Suffrutex sarmentosus ; caules parce rubro-glandulosi, minute crispato-puberuli, mox subglabri. *Folia* opposita subaequalia vel distincte inaequalia, ovata vel ovato-lanceolata, apice acuminata, obtusa, basi cuneata, 4·5–10 cm. longa, 2·5–5 cm. lata, crasse irregulariter crenata, tenuiter chartacea, supra glabra, lineolata, subtus pallida, glandulis rubris sessilibus ornata, costa nervisque crispato-puberula, nervis lateralibus utrinque 5–6 supra conspicuis subtus prominentibus, nervis transversis supra subobscuris subtus subprominulis ; petioli foliorum oppositorum parum inaequales, 0·5–1·5 cm. longi, crispatim puberuli. *Spicae* et axillares et terminales, saepe in paniculam terminalem dispositae, longius pedunculatae, ad 5 cm. longae ; bracteae oblongo-cuneatae, parum retusae, 8·5 mm. longae, 3 mm. latae, pilis longis glandulosis hic illic instructae ; bracteolae bracteis similes sed minores. *Calyx* bilabiatus ; labium anticum e segmentis duobus fere e basi liberis spatulatis retusulis 10·5 mm. longis circiter 2 mm. latis ciliolatis constitutum, posticum 3-lobatum, 9 mm. longum. *Corolla* purpurea (ex *Kerr*), 3 cm. longa. *Capsula* vix 1 cm. longa ; semina orbicularia, compressa, 1·25 mm. diametro, pilis hygroscopicis vestita.

Between Lakon and Phre, near Ban Meh Tah, by streams, 300 m., *Kerr*, 995.

Strobilanthes siamensis, *C. B. Clarke*, Bull. Herb. Boiss., v. (1905) p. 716 ; Williams, Bull. Herb. Boiss., v. (1905) p. 962 ; Hosseus, Engler Bot. Jahrb., xli. p. 68 et ii. p. 444, *excl.* F.B.I. reference.

Klong Wang Djao, from Long Ison to Nong Boa, *Lindhard*, 55 ; Chiengmai, Doi Sootep, 450–1000 m., *Kerr*, 927, *Hosseus*, 251.

Strobilanthes xanthostictus, *C. B. Clarke apud Hosseus*, Engler Bot. Jahrb., xli. p. 68 ; Hosseus, ii. p. 444.

Banks of Meh Ping, Wann Bao (ex *Clarke*, l.c.).

Gutzlaffia pedunculata, *Craib*, a *G. aprica*, Hance, capitulis haud sessilibus facile distinguenda.

Suffrutex ad 1·2 m. altus (ex *Kerr*) ; caules teretes, stricti, pilis brevibus sparsis scabriduli. *Folia* breviter petiolata, lanceolata vel ovato-lanceolata, apice acuta, basi obtusa, 3·5–7 cm. longa, 1–2·4 cm. lata, subcoriacea, margine integro recurvo, supra scabrida, subtus albo-lanata, nervis lateralibus obliquis utrinque 7 supra conspicuis subtus prominulis nervis transversis obscuris. *Capitula* pauciflora, pedunculis (ramulis axillaribus) 2–6 cm. longis suffulta ; bracteae conspicuae, calycem paulo excedentes, lanceolatae, acutae, ciliatae. *Calyx* 1·3 cm. longus, fere ad medium lobatus, lobis inaequalibus lineari-lanceolatis acutis 1 mm. latis ciliatis. *Corollae* purpureae pars infima aequalis 2 cm. longa, 1 mm. diametro, pars expansa 2 cm. longa, 1·3 cm. diametro. *Filamenta* 1·2 cm. longa, basi pubescentia. *Stylus* breviter pubescens.—*Craib*, Kew Bull. 1911, p. 436.

Chiengmai, in eng jungle on Doi Sootep, 360–450 m., *Kerr*, 1430.

Barleria cristata, *Linn.*—F.B.I., iv. p. 488 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 105 ; Hosseus, Engler Bot. Jahrb., xli. p. 69 ; Hosseus, ii. p. 440.

Bangkok, *Zimmermann*, 19 ; Siamese Frontier, 360 m., *Candler* ; Wang Djao, *Hosseus*, 80 ; Chiengmai, Doi Sootep, 300–900 m., *Kerr*, 815.

Distr. S.E. Asia—often cultivated.

Barleria lupulina, *Lindl.*—F.B.I., iv. p. 482, *in nota*.

Bangkok, *Lawson*.

Cultivated in S.E. Asia.

Siamese name, Salate phang poru (ex *Lawson*).

Used by the natives as a remedy for snake bites (*Kew Bull.* 1909, pp. 156 et 343).

Barleria Prionitis, *Linn.*—F.B.I., iv. p. 482 ; Williams, Bull. Herb. Boiss., v. (1905) p. 436 ; Hosseus, Engler Bot. Jahrb., xli. p. 69.

Sriracha, sea-shore, *Kerr*, 2041 ; Bangkok, *Zimmermann*, 92.

Distr. Tropical Asia and Africa.

Barleria siamensis, *Craib*, ob caules pilis deflexis strigosos, folia supra pilis paucis conspicuis distantibus rigidis instructa subtus costa nervisque praecipue molliter pubescentia distincta.

Suffrutex sarmentosus, usque ad 1·2 m. altus (ex *Kerr*) ; caules pilis deflexis densius strigosi. *Folia* elliptica, elliptico-oblanceolata vel oblanceolata, apice longe acuminata, acuta, basi cuneata, 19–22 cm. longa, 5·5–7·5 cm. lata, chartacea, supra pilis paucis distantibus conspicuis rigidis instructa, subtus costa nervisque praecipue molliter pubescentia, nervis lateralibus utrinque 7 supra conspicuis subtus prominulis ; petioli 1–1·5 cm. longi, pubescentes. *Calycis* segmenta 4 ; segmentum posticum ovatum, acutum, 3·5 cm. longum, 2 cm. latum, anticum ovato-lanceolatum, apice emarginatum, 3·1 cm. longum, 1·5 cm. latum, utrumque membranaceum, margine irregulariter dentato-ciliatum, nervis distinctis ; segmenta lateralia

1·7 cm. longa, 1·5–2 mm. lata, apice bene attenuata, ciliata. *Corolla* purpurea (ex *Kerr*), longe exserta, extus parce puberula. *Discus* fere 1 mm. altus, margine subintegro. *Ovarium* 3·5 mm. altum, cum stylo glabrum.—*Craib*, Kew Bull. 1911, p. 437.

Chiengmai, in evergreen jungle. by a stream on Doi Sootep, 690 m., *Kerr*, 1415.

Barleria strigosa, *Willd.*—F.B.I., iv. p. 489 ; Hosseus, Engler Bot. Jahrb., xli. p. 69 ; Hosseus, ii. p. 440.

Chiengmai, Doi Sootep, 300–750 m., *Kerr*, 822 ; Wang Djao, *Hosseus*, 81 ; Sriracha, Nawng Kaw, in evergreen jungle, 30 m., *Kerr*, 2050.

Distr. S.E. Asia—often cultivated.

Neuracanthus tetragonostachyus, *Nees*—F.B.I., iv. p. 491.

Chiengmai, Doi Kum, 360 m., *Kerr*, 1655.

Distr. Burma.

Asystasiella Neesiana, *Lindau*. *Asystasia Neesiana*, Nees—F.B.I., iv. p. 496 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 105. *A. chinensis*, S. Moore—Hosseus, Engler Bot. Jahrb., xli. p. 70 ; Hosseus, ii. p. 439.

Chiengmai, in evergreen jungle on Doi Sootep, 420 m., *Kerr*, 1400 ; Wang Djao, Koh Yai, 110 m., *Hosseus*, 94.

Distr. Assam, Burma, China, Tonkin.

Asystasia Kerrii, *Craib*, ab *A. macrocarpa*, Nees, bracteis conspicuis, sepalis 1·1 cm. longis recedit.

Suffrutex sarmentosus ; caules 3–5 mm. diametro, primo parce brunneo-puberuli, mox glabri, cortice brunneo vel rubro-brunneo obtecti. *Folia* opposita inaequalia, ovato-elliptica, ovato-lanceolata vel lanceolata, apice acuminata vel subacuminata, acuta, basi acuminata vel cuneata, 6–19 cm. longa, 1·5–7·3 cm. lata, utrinque fere glabra, nervis lateralibus utrinque 6–9 supra conspicuis subtus prominulis, petiolis ad 2 cm. longis suffulta. *Racemi* terminales, 3·5–8 cm. longi ; bracteae oblongo-oblanceolatae, apice breviter acuminatae, 7 mm. longae, 1·5–2 mm. latae, nervis conspicuis. *Sepala* 4, unum aliis paulo latius, 11 mm. longa, 1·5–2 mm. lata, ut bracteae glanduloso-pubescentia. *Corolla* alba, purpureo-picta (ex *Kerr*), 2·5 cm. longa, parte basi cylindracea 7 mm. longa 3 mm. diametro, parte inflata 7 mm. diametro, extus puberula ; lobi 5, subaequales. *Stamina* 4, filamentis ad 1 cm. longis glabris ; antherarum loculi subaequales, circiter 2·5 mm. longi, uno paulo altius affixo, basi mucronati. *Ovarium* parce hirsutum, pilis deciduis ; stylus inferne pilis divergentibus parce instructus.—*Craib*, Kew Bull. 1911, p. 438.

Chiengmai, in evergreen jungle by a stream on Doi Sootep, 690 m., *Kerr*, 537 ; hills between Muang Prow and Chieng Dao, 600 m., in evergreen jungle by a stream, *Kerr*, 1042.

Eranthemum acuminatissimum, *Miq.*—Hosseus, Engler Bot. Jahrb., xli. p. 70 ; Hosseus, ii. p. 440.

Petchabun, 70 m. (ex *Hosseus*).

Distr. Java.

Eranthemum Parishii, *C. B. Clarke*—F.B.I., iv. p. 499 ; Hosseus, Engler Bot. Jahrb., xli. p. 70 ; Hosseus, ii. p. 440.

Chiengmai, Doi Sootep, 720–1050 m., *Kerr*, 938, 1779, *Hosseus*, 267 ; Pitsanulok, Nakontai, 300 m., *Hosseus*, 722a.

Distr. Moulmein, Tenasserim.

Cystacanthus abbreviatus, *Craib*, a *C. paniculato*, T. And., cui affinis, foliis basi longius attenuatis, petiolis longioribus, panicula brevi, calycis indumento breviore, corollae indumento sparsiore recedit.

Suffrutex sarmentosus, vix 1 m. altus (ex *Kerr*) ; ramuli primo teretes, virides, puberuli, mox tetragoni, straminei, minute scaberuli. *Folia* oblanceolata vel obovato-oblanceolata, apice breviter acuminata, obtusa, basi attenuata, ad 15 cm. longa, 5 cm. lata, chartacea, margine integro, supra glabra, subtus costa nervisque puberula, nervis lateralibus utrinque circiter 6 obliquis supra subprominulis subtus cum nervis transversis prominulis ; petioli usque ad 3·5 cm. longi. *Flores* in paniculam terminalem angustam abbreviatam dispositi ; bracteae parvae, deciduae ; pedicelli circa 3 mm. longi. *Calycis* segmenta lineari-lanceolata, subobtusa, 7 mm. longa, 1·5 mm. lata, extra adpresse strigillosa, intra ut extra sed parcius, pilis glanduloso-capitatis ciliata. *Corolla* purpurea (ex *Kerr*), corollae *C. paniculati* similis nisi indumento extra parciore. *Stamina* 2, filamentis 12·5 mm. longis ima basi hirsutis, antheris oblongis, connectivo breviter glanduloso-hirsuto. *Ovarium* circiter 2 mm. altum, glabrum, stylo superne glabro inferne pilis perpaucis breviusculis patulis instructo.—*Craib*, Kew Bull. 1911, p. 438.

Lakon, Hooey Meh Tah, by a stream, 600 m., *Kerr*, 1019.

Andrographis tenuiflora, *T. And.*, vars.

Chiengmai, Doi Sootep, in mixed jungle, 550 m., *Kerr*, 1436, in deciduous jungle, 360 m., *Kerr*, 2212 and at 660 m., *Kerr*, 1338.

Of the above collections 1436 is typical *A. tenuiflora*, while 1338 and probably 2212 belong to the variety *Parishii* (T. And., *pro sp.*).

The writer has found it inexpedient at the present time to name these plants critically since he has not seen all the plants described as new species by C. B. Clarke under *Leptostachya*. A duplicate of one of these is in Kew herbarium and it is certainly an *Andrographis*. The writer had hoped to see these plants by this time and drew Hosseus' attention to the plant in Kew, but in his second paper, at page 441, he repeats C. B. Clarke's determinations.

Phlogacanthus asperulus, *Nees*—F.B.I., iv. p. 512.

Meh Ping, Chieng Dao, in evergreen jungle, 420 m., *Kerr*, 1053.

Distr. Bengal, Assam, China.

Kerr's plant is identical with Simon's Khasia specimens but I do not feel sure these are quite typical.

Phlogacanthus curviflorus, *Nees*, var. **brevicalyx**, *C. B. Clarke*—F.B.I., iv. p. 511.

Chiengmai, on marshy ground in evergreen jungle on Doi Sootep, 900 m., *Kerr*, 957.

Distr. (of var.) Lower Burma.

The plant enumerated by Hosseus, Engler Bot. Jahrb., xli. p. 69 et ii. p. 442, as *P. curviflorus* from the same locality is probably identical with Kerr's plant. The calyx teeth in *Kerr*, 957, are

slightly longer than in Clarke's types of var. *brevicalyx* but shorter than in true *curviflorus* and the calyx is nearly glabrous on the outside as in the variety.

Phlogacanthus Murtonii, *Craib*, a *P. pubinervio*, T. And. et *P. Jenkinsii*, C. B. Clarke, quibus affinis, calyce 3 mm. tantum longo recedit.

Folia oblanceolata, apice acuminata, basi inaequalia, acuminata vel in petiolum attenuata, 9–15·5 cm. longa, 3·7–4·6 cm. lata, chartacea, utrinque glabra, nervis lateralibus utrinque circiter 9 supra conspicuis subtus prominulis nervis transversis utrinque subobscuris ; petioli ad 1 cm. longi. *Racemi* axillares, oppositi, ad 1·5 cm. longi, glabri ; bracteae lineares, parvae ; bracteolae minutae, pedicello infra medium affixae ; pedicelli ad 8 mm. longi. *Calycis* 3 mm. longi segmenta lineari-lanceolata, acuta. *Corolla* 2·2 cm. longa, glabra nisi lobis intra minute papillosis. *Stamina* exserta ; filamenta 1·4 cm. longa, glabra vel basi pauperrime pilosula ; antherae 2 mm. longae. *Ovarium* cum stylo glabrum. *Capsula* circiter 3 cm. longa.—*Craib*, Kew Bull. 1911, p. 439.

Kow Hoo Wen, *Murton*, 68.

Lepidagathis falcata, *Wall.*

Ban S' Môngh, foot of Meh Ping Rapids, in bamboo jungle, 135 m., *Kerr*, 2179.

Distr. Taong Dong.

Lepidagathis incurva, *Don*—Hosseus, Engler Bot. Jahrb., xli. p. 71 ; Hosseus, ii. p. 441 (*excl.* plant quoted). *L. hyalina*, Nees—F.B.I., iv. p. 521.

Chiengmai, Doi Sootep, 960 m., *Kerr*, 953, at 1200 m., *Hosseus*, 261 ; Bangkok, *Schomburgk*, 162.

Distr. S.E. Asia.

Lepidagathis incurva, *Don*, var. **semiherbacea**, *C. B. Clarke*, F.B.I., iv. p. 521.

Chiengmai, in mixed jungle, 330 m., *Kerr*, 1660.

Distr. Sikkim, Assam, Burma.

Lepidagathis parviflora, *Blume.*

Chiengmai, Doi Sootep, 660 m., *Kerr*, 960.

Distr. Java, Tonkin.

Clinacanthus Burmanni, *Nees*—F.B.I., iv. p. 524.

Near Chantaboon, *Murton*, 61.

Distr. Hainan, Malacca, Borneo.

Justicia bicalcarata, *Craib*, a *J. montana*, Wall., antherarum loculis omnibus distincte calcaratis recedit.

Suffrutex sarmentosus, ? scandens (ex *Kerr*). *Folia* ovato-lanceolata vel elliptica, apice acuminata, obtusa, basi obtusa vel rotundata, 4·5–16 cm. longa, 1·6–10 cm. lata, chartacea, margine subintegro, supra glabra, subtus primo dense mollissime mox costa nervisque praecipue molliter pubescentia, nervis lateralibus utrinque 7 supra conspicuis subtus prominulis ; petioli 1–3 cm. longi. *Racemi* vel terminales tantum vel etiam in axillis supremis ; bracteae late oblanceolatae, apice breviter acute acuminatae, 8 mm. longae, 4 mm. latae. *Calycis* segmenta lineari-lanceolata, acuta, 8 mm. longa, 1·5 mm. lata, utrinque breviter adpresse fulvo-pubescentia.

Corolla alba (ex *Kerr*), 2·5 cm. longa, distincte bilabiata ; labium superum oblongum, apice emarginatum, 1·5 cm. longum, 8 mm. latum, utrinque superne pilosulum et intra basi pilosum, inferum vix ad medium 3-lobatum, lobis superne utrinque pilosulis. *Filamenta* circiter 1·4 cm. longa, inferne barbata ; antherae biloculares, loculo quoque basi calcarato. *Stylus* inferne ut ovarium parce pubescens. —*Craib*, Kew Bull. 1911, p. 440.

Near Muang Phre, 300 m., *Kerr*, 993.

Lao name, Dauk Mohlah (ex *Kerr*).

Justicia chlorantha, *Craib*, ab affini *J. flaccida*, Kurz, petiolis haud alatis, inflorescentia spiciformi plerumque simplice, floribus multo minoribus facile distinguenda.

Caules circiter 6 dm. alti, basi lignosi, primo unilateraliter pubescentes, mox glabri, subvirides, striati. *Folia* late ovata, ovato-oblonga vel ovato-lanceolata, apice acuminata, obtusiuscula, basi rotundato- vel fere truncato-cuneata, 10–21·5 cm. longa, 5·7–10·5 cm. lata, membranacea, utrinque fere glabra, supra sicco viridia, subtus pallidiora, nervis lateralibus utrinque 9–10 supra conspicuis subtus prominentibus, nervis transversis pagina utraque conspicuis ; petioli foliorum oppositorum parum inaequales, ad 6·5 cm. longi, supra canaliculati et pilis crispis brunneis in lineas duas dispositis instructi. *Cymae* oppositae, in racemum terminalem spiciformem plerumque simplicem 10–17 cm. longum internodiis infinis 3 cm. longis dispositae ; pedunculus communis circiter 4 cm. longus, ut rhachis unilateraliter crispatim pubescens ; bracteae bracteolaeque parvae. *Calyx* 2 mm. longus, lobis 5 acutis ciliolatis. *Corolla* viridis (ex *Kerr*), 5·5 mm. longa ; labium posticum erectum, emarginatum, anticum 3-lobatum. *Stamina* subinclusa. *Capsula* oblonga, circiter 1 cm. longa, inferne in stipitem contracta, parce pubescens. *Semina* depresso-globosa, circiter 2 mm. diametro, verrucosa.

Meh Ping Rapids, Ban Kaw, in mixed jungle, *Kerr*, 2023.

Justicia decumbens, *Craib*, ab *J. flaccida*, Kurz, petiolis haud vel vix alatis facile distinguenda.

Caules decumbentes, nodis inferioribus radicantes, primo bifacialiter pubescentes, mox glabri. *Folia* elliptica vel ovato-lanceolata, apice acuminata, obtusa, basi attenuata, 6–18 cm. longa, 2–6·5 cm. lata, membranacea, utrinque fere glabra, supra lineolata, subtus pallidiora, nervis lateralibus utrinque circiter 8 supra conspicuis, subtus prominulis, nervis transversis utrinque conspicuis, petiolis ad 4 cm. longis supra canaliculatis parce pubescentibus suffulta. *Panicula* terminalis, ei *J. flaccidae* similis ; bracteae bracteolaeque parvae. *Calyx* 2 mm. longus, lobis lineari-lanceolatis acutis ciliolatis. *Corolla* alba nisi labio antico purpureo-picta (ex *Kerr*), 1·5 cm. longa ; labium posticum erectum, anticum breviter 3-lobatum. *Stamina* 2, subinclusa.

Chiengmai, Doi Kum, by stream, 330 m., *Kerr*, 1658.

Justicia diffusa, *Willd.*—F.B.I., iv. p. 538. *J. diffusa*, Willd., var. *orbiculata*, Williams, Bull. Herb. Boiss., v. (1905) p. 436, pro parte ; Hosseus, Engler Bot. Jahrb., xli. p. 71, pro parte.

Anhin, *Schomburgk*, 253.

Var. **orbiculata**, *C. B. Clarke*, F.B.I., l.c.; Williams, l.c., pro parte; Hosseus, l.c., pro parte.

Anhin, *Schomburgk*, 273; Sriracha, among grass by sea, *Kerr*, 2133.

Distr. India.

Justicia fragilis, *Wall.*—F.B.I., iv. p. 528. *J. Gendarussa*, Williams, Bull. Herb. Boiss., v. (1905) p. 436; Hosseus, Engler Bot. Jahrb., xli. p. 72—at least in part—*non* Linn. f.

Bangkok, *Schomburgk*, 140.

Distr. Mergui, Tonkin.

Justicia Gendarussa, *Linn. f.*—F.B.I., iv. p. 532; For. Fl. Burma, ii. p. 247; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 106; Williams, Bull. Herb. Boiss., v. (1905) p. 436 et Hosseus, Engler Bot. Jahrb., xli. p. 72, *excl.* planta Schomburgkiana.

Bangkok, *Lawson*, *Zimmermann*, 126; between Raheng and Paknampo, 105 m., *Kerr*, 501; Chiengmai, foot of Doi Sootep, 360 m., *Kerr*, 529; Phre, 180 m., *Luang Vanpruk*, 192; Koh Chang, *Schmidt*, 820.

Distr. China and Malay Archipelago to Africa.

Lao name, Bua Ha (ex *Luang Vanpruk*).

Used by the natives as a remedy for snake bites (*Kew Bull.*, 1909, pp. 156 et 343).

Justicia glabra, *Koen.*—F.B.I., iv. p. 535.

Meh Ping Rapids, Ap Nang, in mixed jungle, 150 m., *Kerr*, 2192.

Distr. India [Java, ex *F.B.I.*]

Justicia khasiana, *C. B. Clarke*, F.B.I., iv. p. 537; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 106. *J. procumbens*, var. *latispica*, Hosseus, ii. p. 441.

Doi Chieng Dao, 2170 m., *Hosseus*, 403.

Distr. Khasia, Upper Burma.

This plant agrees with the specimen referred to *J. khasiana* by Coll. and Hemsl., l.c. and differs but slightly from the type in the rather broader leaves and less hispid stem.

Justicia procumbens, *Linn.*—F.B.I., iv. p. 539; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 106; Hosseus, Engler Bot. Jahrb., xli. p. 72; Hosseus, ii. p. 441; Williams, Bull. Herb. Boiss., v. (1905) p. 962.

Chiengmai, Doi Sootep, 300–700 m., *Kerr*, 1368, *Hosseus*, 279; Raheng, Tapotsah, *Lindhard*, 25; Kau Phra Dang, *Hosseus*, 159; Muang Hawt, in open grassy jungle, 210 m., *Kerr*, 2205.

Distr. S.E. Asia to Australia.

The Siam plant belongs to the form *latispica*, C. B. Clarke, F.B.I., l.c.

Justicia quadrifaria, *Wall.*—F.B.I., iv. p. 530; Hosseus, Engler Bot. Jahrb., xli. p. 72. *J. Zollingeriana*, C. B. Clarke, F.B.I., iv. p. 530.

Chiengmai, Doi Sootep, 1200–1680 m., *Kerr*, 1101, 1287, *Hosseus*, 228.

Distr. S. China, Burma, Assam, Java.

Justicia quinqueangularis, *Koen.*—F.B.I., iv. p. 536.

Chiengmai, edge of paddy fields, 300 m., *Kerr*, 803.

Distr. Central India to Bengal.

Justicia ventricosa, *Wall.*—F.B.I., iv. p. 526 ; For. Fl. Burma, ii. p. 248 ; Williams, Bull. Herb. Boiss., v. (1905) p. 436 ; Hosseus, Engler Bot. Jahrb., xli. p. 72.

Between Lakon and Phre, near Ban Meh Tah, 300 m., *Kerr*, 994; Chantaboon, *Murton*, 70.

Distr. Burma, S. China.

Adhatoda Vasica, *Nees*—F.B.I., iv. p. 540 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 108 ; Hosseus, Engler Bot. Jahrb., xli. p. 72.

Doi Saket, Ban Sun Pah Suk, 600 m., *Kerr*, 1025 ; Bangkok, *Schomburgk*, 153.

Distr. E. Asia.

Sphinctacanthus siamensis, *C. B. Clarke* apud Hosseus, Engler Bot. Jahrb., xli. p. 73 ; Hosseus, ii. p. 442.

Meh Ping Banks, Bao, 450 m. (ex *Clarke*).

Graptophyllum hortense, *Nees*—F.B.I., iv. p. 545.

Bangkok, *Zimmermann*, 149.

Distr. India, Malaya.

Rungia parviflora, *Nees* — F.B.I., iv. p. 550 ; Williams, Bull. Herb. Boiss., v. (1905) p. 437 ; Hosseus, Engler Bot. Jahrb., xli. p. 71 ; Hosseus, ii. p. 442.

Tapotsah, *Lindhard*, 7 ; near Ban Takilek, 300 m., *Hosseus*, 323.

Var. **pectinata**, *C. B. Clarke*, F.B.I., l.c. ; Hosseus, l.c.

Chiengmai, Doi Sootep, 600 m., *Kerr*, 1426, 2217, 1600 b ; banks of Meh Ping, opposite Ban Salu, 350 m., *Hosseus*, 383.

Distr. India, China, Indo-China.

Dicliptera riparia, *Nees*—F.B.I., iv. p. 553 ; Hosseus, Engler Bot. Jahrb., xli. p. 71 ; Hosseus, ii. p. 440.

Ban Takilek, 300 m., *Hosseus*, 322.

Distr. Lower Burma.

Dicliptera Roxburghiana, *Nees*—F.B.I., iv. p. 553.

Chiengmai, 300 m., *Kerr*, 1632—" a garden weed."

Distr. N. India, Assam.

Peristrophe lanceolaria, *Nees*—F.B.I., iv. p. 555 ; Hosseus, Engler Bot. Jahrb., xli. p. 71 ; Hosseus, ii. p. 442.

Chiengmai, Doi Sootep, 700–800 m., *Kerr*, 921, *Hosseus*, 271 ; Pitsanulok, Nakontai, 150–200 m., *Hosseus*, 721.

Distr. Assam, Burma.

Leptostachya spp.—v. sub *Andrographis tenuiflora*.

Verbenaceae.

Lantana Camara, *Linn.*—F.B.I., iv. p. 562, *in nota*. ? *L. mixta*, Linn.—For. Fl. Burma, ii. p. 253.

Chiengmai, on waste ground, 300 m., *Kerr*, 711 ; Bangkok, *Zimmermann*, 33, 170 ; collected on a journey from Tavoy to Bangkok, " very common Siamese plant," *Candler*.

Distr. Tropics.

Lantana indica, *Roxb.*—F.B.I., iv. p. 562; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 109.

Meh Ping, Muang Hawt, 240 m., *Kerr*, 2014.

Distr. Trop. Asia.

Stachytarpheta indica, *Vahl*—F.B.I., iv. p. 564 ; Williams, Bull. Herb. Boiss., v. (1905) p. 430.
Ban Tak, on waste ground, 120 m., *Kerr*, 2171.
Distr. Tropics.

Duranta Plumieri, *Jacq.*
Bangkok, *Zimmermann*, 11, 159.
Native of America—often cultivated in the tropics.

Callicarpa arborea, *Roxb.*—F.B.I., iv. p. 567 ; For. Fl. Burma, ii. p. 274 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 109. *C. lanata*, Hosseus, ii. p. 429, *non* Linn.
Chiengmai, Doi Sootep, 900 m., *Kerr*, 691 ; Doi Saket, 1000 m., *Hosseus*, 618.
Distr. India, Burma, Assam, Yunnan, Malaya.
Lao name, Suk ki kai (ex *Kerr*).
Hosseus' plant in the shape of the leaves is very similar to *C. villosa*, Roxb. (*C. arborea*, var. *villosa*, King et Gamble) which came originally from Sylhet. In no case can it be referred to the Indian *C. lanata*.

Callicarpa cana, *Linn.*—F.B.I., iv. p. 568 ; Williams, Bull. Herb. Boiss., v. (1905) p. 430.
Chiengmai, in scrub jungle, 300 m., *Kerr*, 1226 ; Cape Ngob, *Schmidt*, 5.
Distr. Hainan, Malaya, Philippines, Indies.

Tectona grandis, *Linn. f.*—F.B.I., iv. p. 570 ; For. Fl. Burma, ii. p. 259 ; Williams, Bull. Herb. Boiss., v. (1905) p. 430.
Chiengmai, Doi Sootep, in mixed jungle, 330 m., *Kerr*, 1297.
Distr. India, Burma, Malaya—often cultivated.
Lao name, Mai Suk (ex *Kerr*).

Premna fulva, *Craib*, affinis *P. barbatae*, Wall., sed ramulis novellis petiolisque conspicue fulvo-pubescentibus facile distinguenda.
Suffrutex sarmentosus ? vel scandens (ex *Kerr*) ; ramuli juventute conspicue fulvo-pubescentes, striati, mox fere glabri, cortice rubro-brunneo obtecti. *Folia* variabilia, ovata, oblongo-ovata, oblongo-obovata, ovato-lanceolata vel subelliptica, apice acuminata, acuta, rarissime rotundata, basi late cuneata, rotundata vel subcordata, 4–14·5 cm. longa, 2·8–8·5 cm. lata, chartacea, margine irregulariter crenato-serrata, nonnunquam integra, supra pilis paucis rigidiusculis flavis instructa, subtus molliter pubescentia, nervis lateralibus utrinque 5–6 obliquis pagina superiore conspicuis inferiore prominentibus nervisque transversis prominulis ; petioli foliorum oppositorum parum inaequales, 2–5·5 cm. longi, ut ramuli fulvo-pubescentes. *Cymae* in corymbas terminales ad 6 cm. longas et 9 cm. latas dispositae ; bracteae lineares, acutae, infimae ad 7 mm. longae. *Calyx* subbilabiatus, 2·5 mm. longus, 2·5 mm. diametro, lobis subaequalibus brevibus apice rotundatis. *Corollae* viridis tubus circiter 2 mm. longus, intus superne villosus ; labium posticum oblongum, vix retusum, 2 mm. longum, vix 2 mm. latum, inferum 3-lobatum, lobis apice rotundatis. *Filamenta* ad 2·5 mm. longa, glabra. *Ovarium* globosum, 1 mm. diametro, apice pilis paucis erectis instructum ; stylus 4 mm. longus, apice breviter bifidus, glaber.—*Craib*, Kew Bull. 1911, p. 442.
Chiengmai, Doi Sootep, 660 m., *Kerr*, 1085.

Premna herbacea, *Roxb.*—F.B.I., iv. p. 581.
Chiengmai, in deciduous jungle on Doi Sootep, 330–600 m., *Kerr*, 1218.
Distr. Himalayas, Assam (S. Deccan Peninsula, ex *F.B.I.*).

Premna integrifolia, *Linn.*—F.B.I., iv. p. 574; Williams, Bull. Herb. Boiss., v. (1905) p. 431. *P. serratifolia*, Linn.—For. Fl. Burma, ii. p. 262.
Sriracha, by beach, *Kerr*, 2099; Koh Chang, Lom Rock, *Schmidt*, 716.
Distr. Trop. Asia, Australia, Africa.

Premna nana, *Coll. et Hemsl.*, Journ. Linn. Soc., xxviii. p. 109.
Chiengmai, Doi Sootep, in deciduous jungle, 300–600 m., *Kerr*, 1127.
Distr. Upper Burma.

Gmelina arborea, *Linn.*—F.B.I., iv. p. 581; For. Fl. Burma, ii. p. 264; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 110.
Chiengmai, Doi Sootep, 690–900 m., *Kerr*, 540, *Hosseus*, 576 (as to flowers only—the leaves being evidently those of *Columbia floribunda*, Wall., Herb. Kew! Hoss.! et Copenhagen!).
Distr. S.E. Asia.

Gmelina villosa, *Roxb.*—F.B.I., iv. p. 582. *G. asiatica*, Kurz, For. Fl. Burma, ii. p. 265 (ex *Brandis*).
Kanburi, *Teysmann*, 5941.
Distr. Burma, Malaya.

Vitex canescens, *Kurz*—F.B.I., iv. p. 586; For. Fl. Burma, ii. p. 270; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 110.
Phre, 120–180 m., *Luang Vanpruk*, 143; Chiengmai, 300 m., *Kerr*, 1705; Doi Sootep, 330 m., *Kerr*, 1766.
Distr. Assam, Burma, Yunnan.

Vitex limonifolia, *Wall.*—F.B.I., iv. p. 584; For. Fl. Burma, ii. p. 271; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 110; Williams, Bull. Herb. Boiss., v. (1905) p. 431.
Phre, 150–240 m., *Luang Vanpruk*, 184; Meh Ping, Doi Noi, 300 m., *Kerr*, 2011.
Distr. Burma.
Lao name, Tin Nok (ex *Kerr* et *Luang Vanpruk*).

Vitex peduncularis, *Wall.*—F.B.I., iv. p. 587.
Chiengmai, in mixed jungle at foot of Doi Sootep and in deciduous jungle on lower slopes of Doi Sootep, 300–450 m., *Kerr*, 572; Phre, 156–240 m., *Luang Vanpruk*, 122.
Distr. Bengal, Assam, Burma.

Vitex pubescens, *Vahl*—F.B.I., iv. p. 585; For. Fl. Burma, ii. p. 271; Williams, Bull. Herb. Boiss., v. (1905) p. 431.
Sriracha, Nawng Kaw, in evergreen jungle, 30 m., *Kerr*, 2079.
Distr. India, Burma, Assam, Malaya.
Siamese name, Kon S'maw (ex *Kerr*).

Vitex trifolia, *Linn.*—F.B.I., iv. p. 583; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 110. *V. Agnus-castus*, Linn., var. *trifolia*, Kurz, For. Fl. Burma, ii. p. 270.
Chiengmai, in scrub jungle, 330 m., *Kerr*, 1248; Rayong, *Schmidt*.
Distr. India to Japan and southwards to N. Australia.

Schmidt's plant is typical var. *unifoliata* but some of Dr. Kerr's specimens show trifoliolate associated with unifoliolate leaves on the same branches.

Vitex sp.

Me Yuak Phre, 240 m., *Luang Vanpruk*, 241—very young.

"**Clerodendron calamitosum**, *Linn.* (ex parte)"—Hosseus, ii. p. 429.

Wang Djao, 100 m. (ex *Hosseus*).

Clerodendron Colebrookianum, *Walp.*—F.B.I., iv. p. 594.

Chiengmai, on the edge of a clearing on Doi Sootep, 720 m., *Kerr*, 812.

Distr. S.E. Asia.

Clerodendron Garrettianum, *Craib*, ab affini *C. Fortunei*, Hemsl., foliis basi haud attenuatis, panicula subnutante, corollae extra puberulae tubo gracili 2 cm. tantum longo, lobis usque ad 1 cm. longis recedit.

Suffrutex sarmentosus, ad 1·2 m. altus (ex *Kerr*) ; ramuli graciles, primo puberuli, mox glabri, cortice brunneo vel rubro-brunneo obtecti. *Folia* oblonga vel oblongo-lanceolata, apice acuminata, acuta, basi plerumque latissime cuneata sed interdum cuneata, cuneato-rotundata vel truncato-subcordata, parum inaequalia, 5·5–19 cm. longa, 1·5–5·8 cm. lata, tenuiter chartacea, subintegra, ciliolata, supra parcissime setulosa, subtus costa nervisque puberula, nervis lateralibus utrinque 7–9 duobus basalibus plerumpue valde obliquis, supra cum nervis transversis conspicuis subtus prominentibus ; petioli foliorum oppositorum parum inaequales, 0·5–5 cm. longi, supra canaliculati, puberuli. *Panicula* terminalis, subnutans, circa 5 cm. longa, 6 cm. lata, pedunculo communi 2–3 cm. longo suffulta ; bracteae infimae lanceolatae, acuminatae, foliaceae, ad 1·3 cm. longae ; pedicelli ad 8 mm. longi, ut ramuli novelli puberuli. *Calycis* extra puberuli tubus vix 2 mm. longus, lobi lanceolati, acuti, circa 5 mm. longi et 1·5 mm. lati. *Corollae* albo-viridis extra puberulae tubus 2 cm. longus, vix 1 mm. diametro, lobi subaequales, oblongo-spatulati, usque ad 1 cm. longi et 2·75 mm. lati, ciliolati. *Stamina* apicem versus tubi inserta, filamentis 1·7 cm. longis glabris, antheris oblongis 1·5 mm. longis. *Ovarium* glabrum ; stylus gracilis, 3·2 cm. longus, glaber, apice breviter bifidus.—*Craib*, Kew Bull. 1911, p. 444.

Chiengmai, in evergreen jungle on Doi Sootep, 690–900 m., *Kerr*, 1309, 1435.

Clerodendron infortunatum, *Gaertn.*—F.B.I., iv. p. 594 ; For. Fl. Burma, ii. p. 267 ; Williams, Bull. Herb. Boiss., v. (1905) p. 432 ; Hosseus, ii. p. 429.

Chiengmai, Doi Sootep, 300–750 m., *Kerr*, 1094 ; Bangkok, *Schomburgk*, 106 ; Siam, *Teysmann*, 5957.

Distr. S.E. Asia.

Clerodendron neriifolium, *Wall.*—F.B.I., iv. p. 589. *C. inerme*, Gaertn., var. *neriifolium*, Kurz, For. Fl. Burma, ii. p. 266.

Sriracha, on sea shore, *Kerr*, 2039, 2127.

Distr. S.E. Asia, Pacific Is., Australia.

The writer is still doubtful whether *C. neriifolium* is really distinct from *C. inerme*. Both plants have been referred to the former species chiefly on account of the glandular corolla.

Clerodendron paniculatum, *Linn.*,? var. diversifolia, *C. B. Clarke*—F.B.I., iv. p. 593.

Chiengmai, Doi Sootep, in deciduous jungle, 300–720 m., *Kerr*, 762.

Distr. (of var.) Moulmein.

Clerodendron serratum, *Spreng.*, var. Wallichii, *C. B. Clarke*, F.B.I., iv. p. 592.

Chiengmai, Doi Sootep, *Kerr*, 735, 735a, 754.

On these three collections Dr. Kerr's remarks are as follows :—

735. Small tree about 20 ft. high in evergreen jungle at 3000 ft. (collected 18th July, 1909).

735a. Low thin bush about 3 ft. high, otherwise similar to 735, in evergreen jungle at 3600 ft. (collected same day as 735).

754. Annual shoots about 2–3 ft. high from perennial rootstock in deciduous jungle at 1000–1500 ft. (collected 8th Aug., 1909).

Clerodendron Vanprukii, *Craib*, a *C. serrato*, Spreng., calyce haud truncato, bracteis valde diversis recedit.

Ramuli graciles, puberuli, striati. *Folia* elliptico-lanceolata vel ovato-lanceolata, apice acuta, basi in petiolum brevem attenuata, 9–20 cm. longa, 5–9 cm. lata, membranacea vel tenuiter chartacea, profunde irregulariter biserrata, supra puberula, subtus costa nervisque pilosula, nervis lateralibus utrinque circiter 8 intra marginem arcuatis supra cum nervis transversis conspicuis subtus prominulis. *Panicula* terminalis, circiter 12 cm. longa, 3 cm. diametro ; pedunculi communi oppositi, ad 1·3 cm. longi ; bracteae subrhomboideae, apice rotundatae, ad 2·5 cm. longae et 2·5 cm. latae, margine a medio apicem versus crenato-serratae, ciliatae, rufo-pubescentes.—*Craib*, Kew Bull. 1911, p. 444.

Phre, Hooey Kamin, 240 m., *Luang Vanpruk*, 207.

Glossocarya mollis, *Wall.*—F.B.I., iv. p. 598 ; For. Fl. Burma, ii. p. 257 ; Hosseus, ii. p. 430.

Banks of Menam, *Hosseus*, 5.

Distr. Moulmein.

Hymenopyramis brachiata, *Wall.*—F.B.I., iv. p. 598 ; For. Fl. Burma, ii. p. 258 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 111.

Phre, 120 m., *Luang Vanpruk*, 178 ; Meh Ping, Ban Na, *Kerr*, 2017a ; Muang Hawt, *Kerr*, 2017.

Distr. Burma.

Lao name, Kua Kha pua (ex *Luang Vanpruk*).

Hymenopyramis siamensis, *Craib*, ab *H. brachiata*, Wall., indumento diverso, calyce fructescente multo majore recedit.

Suffrutex petiolis arcuato-deflexis scandens ; ramuli subferrugineo-tomentelli : rami latere altero brunnei, puberuli, altero subferrugineo-tomentelli, striati, lenticellis (?) in lineas 8 regulariter dispositis instructi. *Folia* plus minusve elliptica, apice acuminata, acuta, basi late cuneata, ad 14 cm. longa et 7·5 cm. lata, supra parce brunneo-pilosula, subtus molliter pubescentia, glandulosa praetereaque hic illic pilis rigidis erectis nigris instructa, chartacea, nervis lateralibus utrinque 6–8 supra leviter impressis subtus prominentibus, nervis transversis supra leviter impressis subtus prominulis : petioli ad 2·4 cm. longi, subferrugineo-tomentelli praetereaque pilis paucis atris instructi. *Inflorescentia* generis.

Calyx infructescens pedicello ad fere 2 cm. longo suffultus, ad 5·2 cm. longus, basi poculiformis, utrinque pubescens. *Fructus* dense albo-hirsutus.—*Craib*, Kew Bull. 1912, p. 154.

Sriracha, Nawng Kaw, in evergreen jungle, 30 m., *Kerr*, 2087.

Siamese name, Wang Sum (ex *Kerr*).

Symphorema involucratum, *Roxb.*—F.B.I., iv. p. 599 ; For. Fl. Burma, ii. p. 254 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 111.

Phre, Hooey Kamin, 180 m., *Kerr*, 991.

Distr. S. India, Burma.

Sphenodesme (Eusphenodesme) mollis, *Craib*, ob folia subtus parce molliter pubescentia distincta.

Suffrutex scandens ; ramuli primo tomentelli, mox parce pilosuli ; rami glabri, cortice brunneo-cinereo parce lenticellato obtecti. *Folia* oblongo-elliptica, apice acuminata, acuta, basi late cuneata, 4–12 cm. longa, 2–8·5 cm. lata, chartacea, supra pilosula, subtus parce molliter pubescentia sed costa brevius adpresse pubescentia, nervis lateralibus utrinque 5–6 supra leviter impressis subtus prominentibus, nervis transversis supra subimpressis subtus prominulis ; petioli circiter 1 cm. longi, tomentelli. *Cymae* capitatae, 7-florae, in paniculas terminales dispositae ; bracteae cuiusque capituli 6, oblanceolatae vel oblanceolato-spatulatae, apiculatae, circiter 2 cm. longae et 6 mm. latae, utrinque pilosulae, plus minusve distincte nervatae. *Calyx* extra subsericeus, intra superne pilosulus ; tubus 3·5 mm. longus ; lobi deltoidei vel late deltoidei, 1·25 mm. longi, apice breviter bifidi. *Corollae* tubus 4·75 mm. longus, lobi oblongi, apice rotundati, circiter 3 mm. longi et 2·25 mm. lati, intra basi dense villosi. *Stamina* paullo exserta. *Ovarium* pilis albidis erectis rigidiusculis obtectum, circiter 1 mm. altum ; stylus circiter 6·5 mm. longus, apice bifidus, glaber.—*Craib*, Kew Bull. 1912, p. 154.

Sriracha, Nawng Kaw, in evergreen jungle, 30 m., *Kerr*, 2075.

Sphenodesme pentandra, *Jack*—F.B.I., iv. p. 602 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 111. *S. Jackiana*, Schauer—Williams, Bull. Herb. Boiss., v. (1905) p. 432. *Symphorema Jackianum*, Kurz, For. Fl. Burma, ii. p. 255.

Meh Ping, Chieng Dao, in evergreen jungle, 390 m., *Kerr*, 1059 ; Chiengmai, in evergreen jungle on Doi Sootep, 750 m., *Kerr*, 1741.

Distr. Burma, Assam, Malaya.

Congea tomentosa, *Roxb.*—F.B.I., iv. p. 603 ; For. Fl. Burma, ii. p. 256 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 111.

Chiengmai, 300 m., *Kerr*, 533, *Hosseus*, 370 ; Phre, 120–180 m., *Luang Vanpruk*, 163.

Distr. Bengal, Burma, Assam.

In the length of the calyx teeth these specimens are intermediate between the type and var. *azurea*, C. B. Clarke.

Hosseus ii. p. 429 refers his 370 to *C. azurea*, Wall., forma. He also refers other collections which the writer has not seen to *C. azurea*, Wall. and to *C. tomentosa*, Roxb. After further examination of the material in the herbarium the writer is forced to the conclusion that these two are but forms of one species.

Avicennia officinalis, *Linn.*—F.B.I., iv. p. 604; Williams, Bull. Herb. Boiss., v. (1905) p. 432. *A. tomentosa*, Kurz, For. Fl. Burma, ii. p. 276.

Sriracha, below high water mark, *Kerr*, 2095.

Distr. Tropical coasts.

Labiatae.*

Geniosporum strobiliferum, *Wall.*—F.B.I., iv. p. 610.

Chiengmai, in eng jungle on Doi Sootep, 300–600 m., *Kerr*, 771 and in evergreen jungle, 1350–1500 m., *Kerr*, 2238.

Distr. Himalayas, Assam, Yunnan.

Nosema capitatum, *Prain*, Journ. As. Soc. Beng., lxxiii. p. 20; Hosseus, ii. p. 433. *Elsholtzia blanda*, Hosseus, i. p. 498, *non* Benth.

Kanburi, *Teysmann*; Pitsanulok, Ban Jang, 120 m., *Hosseus*, 700.

Acrocephalus capitatus, *Benth.*—F.B.I., iv. p. 611; Williams, Bull. Herb. Boiss., v. (1905) p. 961; Hosseus, i. p. 501.

Chiengmai, in deciduous jungle on Doi Sootep, 330 m., *Kerr*, 1524b; Wang Djao, *Lindhard*, 22.

Distr. India, China, Indo-China, Malay Archipelago.

Orthosiphon rubicundus, *Benth.*—F.B.I., iv. p. 614; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 112.

Chiengmai, in deciduous jungle on Doi Sootep, 300 m., *Kerr*, 655.

Distr. India, Burma.

Kerr's plant is identical with that collected by Collett in the Shan Hills and belongs probably to the form *virgatus* (Benth., *pro sp.*).

Orthosiphon stamineus, *Benth.*—F.B.I., iv. p. 615; Williams, Bull. Herb. Boiss., v. (1905) p. 430; Hosseus, i. p. 501.

Chiengmai, on waste ground by roadside, *Kerr*, 2004; Bangkok, *Schomburgk*, 119; Sriracha, Nawng Kaw, by side of railway track, 30 m., *Kerr*, 2061.

Distr. S.E. Asia to Australia.

Plectranthus Gerardianus, *Benth.*—F.B.I., iv. p. 617; Hosseus, i. p. 499 et ii. p. 433.

Chiengmai, Doi Sootep, 900 m. (ex *Hosseus*).

Distr. India, Khasia (Yunnan ?).

Plectranthus hispidus, *Benth.*?—F.B.I., iv. p. 618; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 113; Hosseus, ii. p. 434. *P. scrophularioides*, Hosseus, i. p. 500, *non* Wall.

Chiengmai, Doi Sootep, 1650 m., *Hosseus*, 203.

Distr. Burma, Assam.

"Plectranthus menthoides, *Benth.* vel aff."—Hosseus, ii. p. 434. *Salvia Moorcroftiana*, Hosseus, i. p. 498, *non* Wall.

Doi Chieng Dao, 2000–2200 m., *Hosseus*, 404.

Plectranthus racemosus, *Hemsl.*—Hosseus, i. p. 500 et ii. p. 434.

Doi Chieng Dao, 2000 m. (ex *Hosseus*).

In Hosseus i. p. 500, this collection is referred definitely to *P. racemosus* but in ii. p. 434, it is enumerated as a form of that species.

* In a footnote to the *Labiatae* in Hosseus' paper 'Beiträge Zur Flora Siams,' Bot. Centralbl. Beihefte xxvii. 2, it is stated that the determinations of the *Labiatae* are by Dr. Muschler.

Plectranthus striatus, *Benth.*—F.B.I., iv. p. 618 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 113 ; Williams, Bull. Herb. Boiss., v. (1905) p. 430 et Hosseus, i. p. 500, in part ; Hosseus, ii. p. 434. *P. Volkensianus*, Muschler, Fedde Rep. Nov. Sp., iv. p. 268 ; Hosseus, i. p. 500.

Chiengmai, Doi Sootep, 660–1020 m., *Kerr*, 871 ; Doi Intanon, 500 m., *Hosseus*, 326 ; (? Siam), *Candler*.

Distr. N. India, Assam, Burma, S. China.

Schomburgk, 120 quoted by Williams and Hosseus under this species is *Ocymum sanctum*, Linn.

Plectranthus ternifolius, *Don*—F.B.I., iv. p. 621 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 113 ; Hosseus, ii. p. 434. *P. Hosseusii*, Muschler, Fedde Rep. Nov. Sp., iv. p. 268 ; Hosseus, i. p. 500 et ii. p. 433. *Elsholtzia Thomsoni*, Hook. f., F.B.I., iv. p. 643.

Chiengmai, Doi Sootep, 1350–1580 m., *Hosseus*, 259, *Kerr*, 1589b ; Doi Intanon, 1120 m., *Hosseus*, 334.

Distr. N. India, China, Indo-China.

"**Plectranthus** sp. aff. *hispidus*, Benth."—Hosseus, ii. p. 434. *P. incisus*, Hosseus, i. p. 500.

Doi Chieng Dao, 1300 m. (ex *Hosseus*).

Perilla ocimoides, *Linn.*—F.B.I., iv. p. 646 ; Hosseus, i. p. 498 et ii. p. 433.

Doi Chieng Dao, 1300 m. (ex *Hosseus*).

Distr. India, Indo-China, China—often cultivated.

Pogostemon fraternus, *Miq.*—F.B.I., iv. p. 635 ; Hosseus, ii. p. 433. *Stachys scaberula*, Hosseus, i. p. 497, *non* Vatke.

Chiengmai, Doi Sootep, 1650–1700 m., *Kerr*, 1646, *Hosseus*, 198.

Distr. Sikkim, Manipur, Java.

Pogostemon glaber, *Benth.*—F.B.I., iv. p. 633 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 114.

Chiengmai, Doi Sootep, 1650 m., *Kerr*, 1684.

Distr. Sikkim, Nepaul, Burma.

Differs from typical *P. glaber* in the nerves on the under surface of the leaf having a few scattered hairs and in the rather denser indumentum of the upper leaf surface and peduncles.

Dysophylla auricularia, *Blume*—F.B.I., iv. p. 638 ; Williams, Bull. Herb. Boiss., v. (1905) p. 430 ; Hosseus, i. p. 498.

Chiengmai, Doi Sootep, 720 m., *Kerr*, 746 ; Koh Chang, *Schmidt*, 261.

Distr. S.E. Asia.

Dysophylla crassicaulis, *Benth.*—F.B.I., iv. p. 640 ; Hosseus, ii. p. 431 (*crapicaulis*). *D. gracilis*, Hosseus, i. p. 499, *non* Dalz.

Between Wann Bao and Chieng Dao, 400 m. (ex *Hosseus*).

Distr. Himalayas, Bengal, Assam.

Dysophylla Helferi, *Hook. f.*, F.B.I., iv. p. 640 ; Hosseus, i. p. 499 et ii. p. 431.

Pitsanulok, Ban Jang, 120 m. (ex *Hosseus*).

Distr. Tenasserim.

Dysophylla Koehneana, *Muschler*, Fedde Rep. Nov. Sp., iv. p. 269; Hosseus, i. p. 499 et ii. p. 431.
Pitsanulok, Ban Jang, 120 m., *Hosseus*, 704.

Dysophylla linearis, *Benth.*—F.B.I., iv. p. 639; Hosseus, ii. p. 431, *nec* Hosseus, i. p. 499.
Doi Sootep, 700–750 m. (ex *Hosseus*).
Distr. Khasia.

Dysophylla pentagona, *C. B. Clarke ex Hook. f.*, F.B.I., iv. p. 641; Hosseus, ii. p. 431. *D. linearis*, Hosseus, i. p. 499 (at least in part), *non* Benth.
Chiengmai, Doi Sootep, 330 m., *Kerr*, 1465, 700 m., *Hosseus*, 272.
Distr. Chota Nagpur.

Dysophylla verticillata, *Benth.*—F.B.I., iv. p. 639; Hosseus, i. p. 499 et ii. p. 431.
Pitsanulok, Ban Jang, 120 m. (ex *Hosseus*).
Distr. India eastwards to Japan and southwards to Australia.

Dysophylla sp. affinis *D. peguanae*, Prain et *D. Koehneanae*, Muschler. *D. peguana*, C. B. Clarke apud Ostenfeld, Bull. Herb. Boiss., v. (1905) p. 717; Williams, Bull. Herb. Boiss., v. (1905) p. 961; Hosseus, i. p. 499, *vix* Prain.
Raheng, Wang Djao, near Tapotsah, *Lindhard*, 25.

Colebrookia oppositifolia, *Smith*—F.B.I., iv. p. 642; For. Fl. Burma, ii. p. 277; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 114; Hosseus, ii. p. 430.
Doi Chieng Dao, 1700 m., *Hosseus*, 412.
Distr. India, Burma, Yunnan.

Elsholtzia blanda, *Benth.*—F.B.I., iv. p. 643; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 114; Hosseus, ii. p. 432. *Teucrium quadrifarium*, Hosseus, i. p. 495, *non* Ham.
Chiengmai, Doi Sootep, 1680 m., *Hosseus*, 239.
Distr. E. Himalayas, Burma, Assam, Yunnan, Sumatra.

Scutellaria glandulosa, *Hook. f.*—F.B.I., iv. p. 669; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 115.
Chiengmai, Doi Sootep, 300–600 m., *Kerr*, 659.
Distr. Burma.

Anisomeles ovata, *R. Br.*—F.B.I., iv. p. 672; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 115; Williams, Bull. Herb. Boiss., v. (1905) p. 961; Hosseus, i. p. 498.
Chiengmai, in mixed and scrub jungles on Doi Sootep, 330–660 m., *Kerr*, 1490, 2241.
Distr. S.E. Asia.

Colquhounia coccinea, *Wall.*, var. mollis, *Prain*, Journ. As. Soc. Beng., lxii. p. 37; Hosseus, ii. p. 430. *C. vestita*, Hook. f., F.B.I., iv. p. 674, pro parte; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 116, *non* Wall. *Gomphostemma phlomoides*, Hosseus, i. p. 496, *non* Benth.
Doi Chieng Dao, 2180 m., *Hosseus*, 399.
Distr. E. Himalayas, Burma, Assam.

Colquhounia elegans, *Wall.*, var. typica, *Prain*, Journ. As. Soc. Beng., lxii. p. 37 ; Hosseus, ii. p. 431. *C. elegans*, Wall.—F.B.I., iv. p. 674 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 116. *Phlomis albiflora*, Hosseus, i. p. 497, *non* Hemsley.

Doi Chieng Dao, 2000 m., *Hosseus*, 410.

Distr. Burma, Manipur.

Colquhounia elegans, *Wall.*, var. tenuiflora, *Prain*, Journ. As. Soc. Beng., lxii. p. 38 ; Hosseus, ii. p. 430. *C. elegans*, Kurz, For. Fl. Burma, ii. p. 278, *non* Wall. (ex *Prain*, l.c.). *C. tenuiflora*, Hook. f., F.B.I., iv. p. 674. *Stachys siamensis*, Muschler, Fedde Rep. Nov. Sp., iv. p. 270 ; Hosseus, i. p. 497.

Chiengmai, Doi Sootep, *Hosseus*, 196 ; Doi Sootep, 1650 m., *Kerr*, 1680.

Distr. Burma, Yunnan.

Leonurus sibiricus, *Linn.*—F.B.I., iv. p. 678 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 116.

Chiengmai, 300 m., *Kerr*, 1662—" a garden weed."

Distr. Trop. Asia, America.

Leucas aspera, *Spreng.*—F.B.I., iv. p. 690 ; Williams, Bull. Herb. Boiss., v. (1905) p. 961 ; Hosseus, ii. p. 432, in part. *L. stelligera*, Williams, l.c. p. 430 ; Hosseus, i. p. 497, in part, et ii. p. 432, in footnote, *non* Benth.

Wang Djao, river banks, *Hosseus*, 29, *Lindhard*, 76 ; Bangkok, *Zimmermann*, 168 ; Chiengmai, 300 m., *Kerr*, 1917—common weed on waste ground.

Distr. India, Malay Archipelago, Mauritius.

Leucas Collettii, *Prain*, Journ. As. Soc. Beng., lix. p. 313. *L. lanata*, Benth., var.—Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 116. *L. lanata*, Craib, Kew Bull. 1911, p. 448, *non* Benth.

Doi Chieng Dao, 2200 m., *Hosseus*, 402.

Distr. Upper Burma, S. China.

Evidently not accounted for in Hosseus' lists.

Leucas mollissima, *Wall.*—F.B.I., iv. p. 682. *L. lamioides*, Hosseus, ii. p. 432, *excl.* plant quoted. *Marrubium lamioides*, Muschler, Fedde Rep. Nov. Sp., iv. p. 271 ; Hosseus, i. p. 496.

Chiengmai, Doi Sootep, *Hosseus*, 206, *Kerr*, 1331, 1576b.

Distr. India, Assam, China, Tonkin.

Neither of these two plants is quite typical *L. mollissima*, that of Hosseus and Kerr's 1576b differing slightly in the calyx teeth while Kerr's 1331 has the inflorescence very much reduced.

Leucas zeylanica, *R. Br.*—F.B.I., iv. p. 689. *L. linifolia*, Craib, Kew Bull. 1911, p. 448, *non* Spreng. *L. stelligera*, Hosseus, i. p. 497, in part, *non* Wall. *L. aspera*, Hosseus, ii. p. 432, *non* Spreng.

Banks of Meh Ping, opposite Ban Salu, 350 m., *Hosseus*, 379.

Distr. India, Hainan, Indo-China, Malaya.

Leonotis nepetaefolia, *Br.*—F.B.I., iv. p. 691.

Above Meh Ping Rapids, Ban Meh Kah, 195 m., *Kerr*, 911.

Distr. Trop. Asia, Africa, America.

Gomphostemma intermedium, *Craib*, Kew Bull. 1910, p. 23.

Chiengmai, Doi Sootep, 720 m., *Kerr*, 733.

Gomphostemma oblongum, *Wall.*—F.B.I., iv. p. 697 ; Prain, Ann. Roy. Bot. Gard. Calc., iii. p. 261, t. 95.

Sriracha, Nawng Kaw, 30 m., in evergreen jungle, *Kerr*, 2054.

Distr. Lower Burma.

Gomphostemma strobilinum, *Wall.*, var. viridis, *Hook. f.*, F.B.I., iv. p. 696 ; Prain, Ann. Roy. Bot. Gard. Calc., iii. p. 247, t. 77. *G. javanicum*, Hosseus, i. p. 496, *non* Benth.

Wang Djao, *Hosseus*, 62 (flowerless specimen).

Distr. Lower Burma.

Hosseus, ii. p. 432 refers his 62 to *G. strobilinum* var. and another collection from same locality to *G. strobilinum* (*Strobelianum*) var. *viridis*.

Gomphostemma Wallichii, *Prain*, Ann. Roy. Bot. Gard. Calc., iii. p. 245, t. 75 ; Hosseus, ii. p. 432. *G. strobilinum*, Hook. f., F.B.I., iv. p. 696 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 116, *non* Wall. *G. dentatum*, Muschler, Fedde Rep. Nov. Sp., iv. p. 270 ; Hosseus, i. p. 496.

Chiengmai, Doi Sootep, 800–1500 m., *Kerr*, 1380, *Hosseus*, 280.

Distr. Yunnan (ex *Prain*, l.c.), Burma, Assam.

Teucrium quadrifarium, *Ham.* sensu lato—F.B.I., iv. p. 701. *T. tomentosum*, Hosseus, i. p. 496 et ii. p. 434, *non* Heyne.

Chiengmai, in open grassy jungle on Doi Sootep, 1350–1500 m., *Kerr*, 1500 ; Doi Chieng Dao, on limestone, 2100 m., *Hosseus*, 418.

Distr. Himalayas, China, Burma, Khasia.

Hosseus, 418 in its minute bracts approaches *T. Wattii*, Prain but the leaves are those of *T. quadrifarium*. In no case, however, can it be referred to the S. Indian *T. tomentosum*. *Kerr*, 1500 is probably a tall form of *T. fulvum*, Hance.

Dracocephalum longipedicellatum, Muschler, Fedde Rep. Nov. Sp., iv. p. 269 ; Hosseus, i. p. 496 = *Staurogyne obtusa*, O. Kze.

Cymaria dichotoma, *Benth.*—F.B.I., iv. p. 705.

Meh Ping Rapids : Ban S'Môn̂g, 135 m., *Kerr*, 2182 ; Ap Nang, 150 m., in mixed jungle, *Kerr*, 2182a.

Distr. Burma, Malay Peninsula (latter not quite typical).

INCOMPLETAE.

Nyctagineae.

Boerhaavia diffusa, *Linn.*—Hosseus, ii. p. 388. *B. repens*, Linn., var. *diffusa*, Hook. f., F.B.I., iv. p. 709.

Chiengmai, 300 m. (ex *Hosseus*).

Distr. Tropics.

Boerhaavia repanda, *Willd.*—F.B.I., iv. p. 709.

Meh Ping, Ban Na, *Kerr*, 2028.

Distr. India, Burma.

Amarantaceae.

Amarantus spinosus, *Linn.*—F.B.I., iv. p. 718 ; Williams, Bull. Herb. Boiss., v. (1905) p. 960.

Meh Ping, Sop Chem, on waste ground and mud bank, 210 m., *Kerr* ; Wang Djao, *Lindhard*, 36.

Distr. Tropics.

Lao name, Pŭk Kom (ex *Kerr*).

According to Kerr the stem is eaten as a vegetable.

Psilotrichum trichotomum, *Blume*—F.B.I., iv. p. 725.

Chiengmai, Doi Sootep, in deciduous jungle, 600 m., *Kerr*, 1427.

Distr. Burma, Assam, Malaya.

Aerua Monsonia, *Mart.*—F.B.I., iv. p. 728.

Cape Liant, *Murton*, 29 ; Sriracha, on sand by beach, *Kerr*, 2129.

Distr. India, Burma.

Celosia argentea, *Linn.*—F.B.I., iv. p. 714 ; Williams, Bull. Herb. Boiss., iv. (1904) p. 1030 ; Hosseus, ii. p. 388.

Chiengmai, on sandbanks in streams, 330 m., *Kerr*, 1933 ; Wang Djao, 100 m. (ex *Hosseus*) ; Paknampo, *Hosseus*, 15 ; Bangkok, *Schomburgk*, 166 ; Siam (?) *Candler*.

Distr. Tropics.

Cyathula prostrata, *Blume*—F.B.I., iv. p. 723 ; Hosseus, ii. p. 388.

Chiengmai, Doi Sootep, 1000 m. (ex *Hosseus*).

Distr. Tropics.

Achyranthes bidentata, *Blume*—F.B.I., iv. p. 730.

Chiengmai, Doi Sootep, in evergreen jungle, 900 m., *Kerr*, 1322.

Distr. India, Khasia, China, Japan, Java, Trop. Africa.

Alternanthera sessilis, *R. Br.*—F.B.I., iv. p. 731 ; Hosseus, ii. p. 388.

Chiengmai, 300 m., *Kerr*, 854, 2303.

Distr. Tropics and subtropics.

Polygonaceae.

Polygonum barbatum, *Linn.*—F.B.I., v. p. 37 ; Gage, Rec. Bot. Surv. Ind., ii. p. 397 ; Williams, Bull. Herb. Boiss., iv. (1904) p. 1030.

Chiengmai, bank of Meh Ping, 300 m., *Kerr*, 851 ; Bangkok, *Schomburgk*, 225.

Distr. Tropical and subtropical Asia, Africa, Australia.

Polygonum chinense, *Linn.* vars.

Chiengmai, Doi Sootep, 1500–1650 m., *Kerr*, 1104, *Hosseus*, 193 ; Doi Intanon, 2300–2570 m., *Hosseus*, 345, 355.

Of the above *Hosseus*, 345 is probably *P. chinense* and the remaining plants might be referred to the variety *ovalifolia* (Miq.).

Hosseus, ii. p. 387 refers his 193 and 345 to true *P. chinense*, Linn. and another collection from Doi Intanon to var. *ovalifolia*.

Polygonum Damrongianum, *Hosseus*, Fedde Rep. Nov. Sp., x. p. 62.

Doi Chieng Dao, 2100 m. (ex *Hosseus*).

Polygonum flaccidum, *Meissn.*—F.B.I., v. p. 39 ; Gage, Rec. Bot. Surv. Ind., ii. p. 402.
Chiengmai, bank of Meh Ping, 300 m., *Kerr*, 853.
Distr. S.E. Asia.

Polygonum glabrum, *Willd.*—F.B.I., v. p. 34 ; Gage, Rec. Bot. Surv. Ind., ii. p. 393 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 118 ; Hosseus, ii. p. 387.
Wang Djao, *Hosseus*, 31a, 31b, pro parte.
Distr. Tropical and subtropical Asia, Africa, America.

Polygonum plebejum, *Br.*, var. indica, *Hook. f.*, F.B.I., v. p. 28; Hosseus, ii. p. 387.
Chiengmai, rice-field weed (ex *Hosseus*).
Distr. Trop. Asia, Africa, Australia.

Polygonum Roxburghii, *Meissn.*, var. longifolium, *Meissn.*—Hosseus, ii. p. 387.
Chieng Dao, 350 m. (ex *Hosseus*).
According to F.B.I., v. p. 28 this is identical with the preceding.

Polygonum stagninum, *Ham.*—F.B.I., v. p. 37 ; Gage, Rec. Bot. Surv. Ind., ii. p. 397.
Banks of Menam, *Hosseus*, 2 ; Wang Djao, *Hosseus*, 31b (Herb. Kew, pro parte ! et Copenhagen !).
Distr. India, Burma.
Hosseus, ii. p. 386 refers his 2 and 316 (misprint for 31b ?) to the American *P. acuminatum*, var. *Humboldtii*.

Antigonon leptopus, *Hook. et Arn.*
Bangkok, *Zimmermann*, 38.
Native of America.

Muhlenbeckia platyclados, *Meissn.*—Hosseus, ii. p. 386.
Chiengmai, Doi Sootep, 1700 m., *Hosseus*, 215 (Herb. Kew ! et Copenhagen !).
Native of Solomon Is.

Rafflesiaceae.

Richthofenia siamensis, *Hosseus*, Engl. Bot Jahrb., xli. p. 55, cum tab. ; Hosseus, ii. p. 386.
Chiengmai, on roots of *Tetrastigma cruciatum* in evergreen jungle, 900 m., *Kerr*, 1616b.

Aristolochiaceae.

Aristolochia Hookeriana, *Craib*, *A. Tagalae*, Cham., affinis sed bracteis conspicuis, floribus seminumque aliis minoribus differt.
Caules scandentes, glabri, sulcati. *Folia* lanceolata vel late lanceolata, apice acuta, basi cordata vel interdum sagittata, 5–15·5 cm. longa, 1·5–4·8 cm. lata, tenuiter chartacea, supra marginem versus densius breviter hirsuta, subtus subglabra, e basi 5-nervata nervis secondariis (e costa ortis) utrinque 2–4 intra marginem arcuatis omnibus supra conspicuis subtus cum nervis transversis prominentibus ; petioli 0·7–2 cm. longi. *Cymae* axillares, plerumque simplices, petiolos paullo superantes, pedunculo communi

brevi ; bracteae lanceolatae vel anguste lanceolatae, acutae, ad 1 cm. longae, 2 mm. latae ; pedicelli 5–7 mm. longi, pilosi. *Receptaculum* subtubulosum, 5 mm. altum, 1 mm. diametro, pilosum. *Calycis* atro-purpurei (ex *Kerr*) pars ima basi tubulosa, 3 mm. longa, 0·5 mm. diametro ; utriculus subglobosus, 3 mm. diametro, tubus superne dilatatus, circiter 8 mm. longus, 1 mm. diametro ; limbus oblongus, breviter apiculatus, ad 1·6 cm. longus, extra, nervis praecipue, pilosus. *Fructus* pedicello ad 3·5 cm. longo suffultus, 6-costatus, 2–3 cm. longus, vix 2 cm. diametro ; semina triangularia, tenuia, alis 1 mm. tantum latis.—*Craib*, Kew Bull. 1911, p. 450. *A. Roxburghiana*, Hook. f., F.B.I., v. p. 75, pro parte ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 118, *vix* Klotsch.

Chiengmai, in eng jungle on Doi Sootep, 390 m., *Kerr*, 838 ; in mixed jungle on Doi Sootep, 420 m., *Kerr*, 1454.

Distr. Upper Burma, *Collett*, 23 ; Rangoon, *Mc Clelland*.

To this species probably also belong *Lace* 3286 and 4328 from Maymyo Plateau although the larger, broader leaves remind one rather of *A. Tagala*, Cham.

Aristolochia Kerrii, *Craib*, a speciebus indicis et indo-chinensibus habitu erecto recedit.

Caules e rhizomate oriundi annui, 30–45 cm. alti, puberuli, valde sulcati. *Folia* ovato-lanceolata, apice acuta, basi cordata, 3·5–8·5 cm. longa, 1·5–5·5 cm. lata, chartacea, supra juventute minute puberula, matura glabra, subtus nervis nervulisque minute densius puberula, e basi 5-nervata, nervis supra conspicuis subtus cum nervis transversis prominentibus ; petioli 0·5–1·7 cm. longi, ut caules puberuli. *Cymae* axillares, pauciflorae, breves, pedunculo perbrevi suffultae ; bracteae conspicuae, lanceolatae, acutae, 6 mm. longae, 2 mm. latae ; pedicelli ad 7 mm. longi, fere glabri. *Receptaculum* subtubulosum, circiter 3 mm. longum, 0·5 mm. diametro, sulcatum, glabrum. *Calycis* extra glabri utriculus subglobosus, 3 mm. diametro, tubus ad 7 mm. longus, superne parum dilatatus, limbus 8 mm. longus.—*Craib*, Kew Bull. 1911, p. 450.

Chiengmai, in deciduous jungle on Doi Sootep, 600 m., *Kerr*, 627.

Piperaceae.

Piper boehmeriaefolium, *Wall.*—F.B.I., v. p. 85; Hosseus, ii. p. 383.

Chiengmai, in marshy evergreen jungle on Doi Sootep, 900 m., *Kerr*, 1260 ; Doi Intanon, 1600 m., *Hosseus*, 341 (Herb. Kew ! et Copenhagen !).

Distr. E. Himalayas, Assam, Burma.

Of the specimens of this species collected by Dr. Kerr half of them agree with typical *P. boehmeriaefolium* in their glabrous leaves and branchlets but the remainder differ in that the under surface of the leaves and the young branchlets are not glabrous.

Piper sp.

Chiengmai, in evergreen jungle on Doi Sootep, 660 m., *Kerr*, 1169.

Represented by male plants with only young inflorescences.

Peperomia pellucida, *Kunth.*

Chiengmai, 300 m., *Kerr*, 1442.

An introduced garden weed.

Peperomia reflexa, *A. Dietr.*—F.B.I., v. p. 99; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 118; Hosseus, ii. p. 383.

Chiengmai, on tree trunks in evergreen jungle on Doi Sootep, 1500–1650 m., *Kerr*, 1375, *Hosseus*, 245.

Distr. Tropics and subtropics.

Chloranthaceae.

Chloranthus kachinensis, *King et Prain*, Journ. As. Soc. Beng., lxix. p. 173.

Chiengmai, Doi Sootep, in open grassy jungle, 1380 m., *Kerr*, 1190.

Distr. Kachin Hills.

Chloranthus officinalis, *Blume*—F.B.I., v. p. 100.

Chiengmai, in thick evergreen jungle on Doi Sootep, 900–1650 m., *Kerr*, 1870, 2225.

Distr. Himalayas, Assam, Yunnan, Malaya.

Lao name, Hawng Kai (ex *Kerr*).

Myristicaceae.

Knema conferta, *Warb.*, var.

Sriracha, Nawng Kai Ploi, in evergreen jungle, 90 m., *Kerr*, 2120.

Distr. Malaya, Tonkin.

Siamese name, Chi Chuang (ex *Kerr*).

Lauraceae.

Beilschmiedia sp. n. ?

Phre, Me Sang, 210 m., *Luang Vanpruk*, 214.

Cinnamomum iners, *Reinw.*—F.B.I., v. p. 130; ? For. Fl. Burma, ii. p. 287.

Meh Ping, Chieng Dao, in evergreen jungle, 420 m., *Kerr*, 1055.

Distr. Burma, Malaya.

Machilus Kurzii, *King ex Hook. f.*, F.B.I., v. p. 860 ?

Chiengmai, Doi Sootep, 1700 m., *Hosseus*, 184 (Herb. Kew ! et Copenhagen !).

Distr. Sikkim, Burma.

In the absence of fruit the determination of this plant which has not yet been collected by Dr. Kerr and which I have failed to trace in Hosseus' paper still remains doubtful.

Actinodaphne angustifolia, *Nees* ?—F.B.I., v. p. 152. *Litsea angustifolia*, Kurz, For. Fl. Burma, ii. p. 305.

Chiengmai, in evergreen jungle on Doi Sootep, 1140 m., *Kerr*, 1643 (♂ only).

Distr. Bengal, Burma, Assam, Malay Archipelago.

Litsea polyantha, *Juss.*—F.B.I., v. p. 162. *Tetranthera monopetala*, Roxb.—For. Fl. Burma, ii. p. 299.

Chiengmai, in evergreen jungle on Doi Sootep, 660 m., *Kerr*, 1137; Phre, 120–180 m., *Luang Vanpruk*, 153.

Distr. Himalayas, Bengal, Assam, Burma, Hongkong, Hainan, Malay Peninsula.

Litsea salicifolia, *Roxb.*—F.B.I., v. p. 167. *Tetranthera glauca*, Wall.—For. Fl. Burma, ii. p. 300.

Chiengmai, in evergreen jungle on Doi Sootep, 1500 m., *Kerr*, 1111.

Distr. N. India, Burma, Assam.

Litsea sebifera, *Pers.*—F.B.I., v. p. 157.

Chiengmai, in mixed jungle at foot of Doi Sootep, 330 m., *Kerr*, 1208; ? Meh Ping, Muang Hawt, 240 m., *Kerr*, 2018.

Distr. S.E. Asia.

Litsea semecarpifolia, *Wall.*—F.B.I., v. p. 165. *Tetranthera semecarpifolia*, Wall.—For Fl. Burma, ii. p. 303.

Chiengmai, in mixed jungle on Doi Sootep, 660 m., *Kerr*, 1760.

Distr. Bengal, Burma, Manipur.

Litsea (?) sp.

Chiengmai, in evergreen jungle on Doi Sootep, 1200–1500 m., *Kerr*, 880 (♀ only).

Lindera bifaria, *Benth.*—F.B.I., v. p. 184; Hosseus, ii. p. 389.

Doi Intanon, 2500 m. (ex *Hosseus*).

Distr. Himalayas, Assam, China.

Lindera caudata, *Benth.*—F.B.I., v. p. 184. *Daphnidium caudatum*, Nees—For. Fl. Burma, ii. p. 307.

Chiengmai, Doi Sootep, in evergreen jungle, 1260 m., *Kerr*, 1390.

Distr. Khasia and Naga Hills, Upper Burma.

Lindera pulcherrima, *Benth.*—F.B.I., v. p. 185; Hosseus, ii. p. 389. *Daphnidium pulcherrimum*, For. Fl. Burma, ii. p. 306.

Doi Intanon, 2570 m., *Hosseus*, 358 (Herb. Kew! et Copenhagen!).

Distr. Himalayas, Khasia.

Cassytha filiformis, *Linn.*—F.B.I., v. p. 188.

Sriracha, on bushes by beach, *Kerr*, 2152.

Distr. Trop. Africa, Asia, Australia.

Proteaceae.

Helicia erratica, *Hook. f.*, F.B.I., v. p. 189; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 119. *H. cochinchinensis*, For. Fl. Burma, ii. p. 311.

Chiengmai, in open jungle on slopes of ridges on Doi Sootep, 900–1500 m., *Kerr*, 622.

Distr. Sikkim, Assam, Burma (? Borneo).

Hosseus 357 from Doi Intanon referred by Hosseus, ii. p. 385 to *H. robusta* is in bud only, but is evidently only a form of *H. erratica*.

Thymelaeaceae.

Linostoma persimile, *Craib*, *L. pauciflorо*, Griffith, facie similis sed floribus brevioribus, staminibus inclusis, perianthio fructifero basi rotundato eiusque lobis dimidio brevioribus distinguenda.

Suffrutex erectus—vel interdum scandens—circiter 2 m. altus (ex *Kerr*), glaber. *Ramuli* teretes, virgati, cortice rubro-brunneo obtecti. *Folia* opposita vel subopposita, elliptica vel obovata, apice apiculata, basi cuneata, circiter 3 cm. longa, 1·5 cm. lata, margine

integra, incrassata, chartacea, supra fusco-viridia, subtus pallidiora, nervis lateralibus utrinque numerosis parallelis cum costa supra subconspicuis subtus prominulis ; petioli 2 mm. longi, basi leviter incrassati. *Pedunculi* graciles, fere 3 cm. longi, 3-flori, bracteis tribus sessilibus ornati quarum una basin prope usque ad 1 cm. longa 5 mm. lata, ceterae medium prope flores obtegentes usque ad 2·5 cm. longae 2 cm. latae, foliis similibus nisi pallidioribus tenuioribus majoribusque basi cordatis apice acutis ; bracteolae parvae, filiformes vel anguste lanceolatae. *Alabastra* clavata. *Perianthii* tubus cylindraceus, 9 mm. longus, 2 mm. diametro, lobi 5, fere 5 mm. longi, squamae 10, lineares, lobis breviores. *Stamina* 10, inclusa. *Ovarium* densissime pilosum, 3 mm. altum.—*Craib*, Kew Bull. 1911, p. 452.

Chiengmai, in open pine jungle on Doi Sootep, 915 m., *Kerr*, 814.

Loranthaceae.

Loranthus cultarum, *Craib*, *L. pulverulento*, Wall., similis sed inflorescentiae indumento stellato, corolla multo breviore differt.

Ramuli teretes, lenticellati, cortice cinereo vel rubro-brunneo. *Folia* subelliptica vel ovato-lanceolata, apice obtusa, basi interdum inaequalia, rotundata, 4–9·4 cm. longa, 2–5·2 cm. lata, subcoriacea, matura glabra vel subtus pilis stellatis perpaucis instructa, juventute utrinque stellato-tomentella, supra ferruginea, subtus pallida, nervis lateralibus utrinque 6–7 intra marginem arcuatis pagina utraque prominulis nervis transversis uti reticulatione laxa prominulis ; petioli 1 cm. longitudinis vix attingentes, glabrescentes. *Inflorescentia* axillaris, petiolis duplo vel triplo longior ; bracteae parvae ; pedicelli circiter 4 mm. longi, stellato-tomentelli. *Receptaculum* anguste turbinatum, 4 mm. altum, 1·5 mm. diametro, densius stellato-tomentellum. *Calyx* fere obsoletus. *Corollae* extra stellato-tomentellae intra glabrae tubus 1·6 cm. longus, inferne parum dilatatus, unilateraliter fere ad basin fissus, lobi 4, reflexi, linearis-spatulati, acuti, 7 mm. longi. *Filamenta* 2·5 mm. longa, glabra, paullo supra corollae loborum basin inserta, antheris circiter 2 mm. altis. *Stylus* stamina paullo superans, stigmate parvo capitato.—*Craib*, Kew Bull. 1911, p. 452.

Chiengmai, 300 m., *Kerr*, 820—parasitic on cultivated trees, *Nerium Oleander* and *Pomegranate* (ex *Kerr*).

Loranthus Kerrii, *Craib*, a *L. pentandro*, Linn., corolla multo majore recedit.

Ramuli teretes, lenticellati, cortice cinereo vel brunneo subnitido obtecti. *Folia* opposita, subopposita vel alterna, oblique lanceolata, late lanceolata vel ovata, apice obtusa, basi attenuata vel obtusa, 6–18 cm. longa, 3–12 cm. lata, rigide coriacea, utrinque glabra, nervis lateralibus utrinque 2–4 obliquis pagina utraque conspicuis, nervis transversis subconspicuis ; petioli 0·7–1 cm. longi, maturi crassi. *Inflorescentia* axillaris, petiolis duplo saltem longior ; bracteae solitariae, vix 3 mm. longae ; pedicelli circiter 4 mm. longi. *Receptaculum* cylindraceum, 3 mm. altum, 2·5 mm. diametro, tomentellum. *Calyx* conspicuus, margine subtruncatus vel irregulariter lobatus, 1·5 mm. altus, glabrescens. *Corolla* aurantiaca (ex *Kerr*) extra tomentella, intra loborum summo apice tubique ima

basi glabris exceptis parce stellato-pubescens ; tubus 1·6 cm. longus, 4–5 mm. diametro ; lobi medio reflexi, 2 cm. saltem longi, angusti, apice acuti. *Filamenta* 7 mm. longa, glabra, loborum circiter medium affixa, antheris 5 mm. longis. *Stylus* stamina paullo superans, glaber, stigmate parvo capitato.—*Craib*, Kew Bull. 1911, p. 453.

Chiengmai, Doi Sootep, 300 m., *Kerr*, 949—on *Pentacme siamensis*.

Loranthus Parishii, *Hook. f.*, F.B.I., v. p. 205.

Chiengmai, Doi Sootep, 750 m., *Kerr*, 1763.

Distr. Tenasserim.

Hosseus, ii. p. 386 records *L. pulcher* from Doi Sootep, 850 m. and remarks that his plant is identical with *Scortechini*, 281 from Perak. This latter plant the writer has failed to trace in Herb. Kew but judging from the geographical distribution of the two species he thinks it probable that Hosseus' plant may be *L. Parishii*.

Loranthus pentandrus, *Linn.*—F.B.I., v. p. 216 ; For. Fl. Burma, ii. p. 320 ; Williams, Bull. Herb. Boiss., iv. (1904) p. 1028 ; Hosseus, ii. p. 386.

Chiengmai, 300 m., *Kerr*, 819 ; Doi Sootep, 900–1050 m., *Hosseus*, 499 (Herb. Kew! et Copenhagen!), 262 ; Bangkok, *Schomburgk*, 222, 313.

Distr. Indo-China, Malaya.

The writer has seen no specimen of *L. Zimmermannii*, Warb., Pl. nov. Herb. Hort. Then., t. 82 but the plate and description point to its being very closely allied to *L. pentandrus*.

Loranthus pentapetalus, *Roxb.* — F.B.I., v. p. 206 ; For. Fl. Burma, ii. p. 322 ; Williams, Bull. Herb. Boiss., iv. (1904) p. 1028.

Chiengmai, Doi Sootep, 1350 m., *Kerr*, 619 ; Chantaboon, *Murton*, 65.

Distr. Sikkim, Assam, Burma, Yunnan, Hainan, Malaya.

Loranthus scurrula, *Linn.*—F.B.I., v. p. 208 ; For. Fl. Burma, ii. p. 318.

Chiengmai, in open jungle on Doi Sootep, 1590 m., *Kerr*, 1377.

Distr. India, Assam, Burma.

Loranthus siamensis, *Kurz*—F.B.I., v. p. 223 ; For. Fl. Burma, ii. p. 320 ; Williams, Bull. Herb. Boiss., iv. (1904) p. 1028.

Kanburi, *Teysmann*.

Loranthus sootepensis, *Craib*, a speciebus indicis ob indumentum, inflorescentiae praeclare, e pilis longiusculis verticillatim ramosis densissimis constitutum distincta.

Ramuli juventute pilis verticillatim ramosis dense albido-tomentosi, mox glabri, cortice brunnescente lenticellato obtecti. *Folia* ovata vel ovato-lanceolata, apice obtusa, basi rotundata, 5·5–10 cm. longa, 2·5–6 cm. lata, rigide chartacea, supra juventute pilis stellatis et verticillatim ramosis instructa, matura glabra, subtus costa nervisque indumento plus minusve persistente ut ramulis novellis, cetera pilis stellatis et praeterea pilis paucis verticillatim ramosis instructa, nervis lateralibus utrinque 5–7 pagina utraque sicco prominulis ; petioli circiter 1 cm. longi, ut ramulis juvenilibus tomentosi. *Inflorescentia* axillaris, congesta,

petiolos paullo superans, pilis verticillatim ramosis dense albido- vel subferrugineo-tomentosa ; pedicelli 3 mm. longi, fere 2 mm. diametro ; bracteae solitariae, 2·5 mm. longae. *Receptaculum* 7 mm. altum, 3 mm. diametro. *Calyx* obsoletus. *Corollae* intra glabrae tubus 8 mm. longus, unilateraliter infra medium fissus, lobi 4, suberecti, apice incurvi, subcucullati, acuti, 5 mm. longi. *Stamina* inclusa, paullo supra loborum bases inserta, filamentis 2 mm. longis glabris, antheris 1 mm. longis.—*Craib*, Kew Bull. 1911, p. 454.

Chiengmai, Doi Sootep, 660 m., *Kerr*, 947.

Loranthus securidacoides, Warb., Pl. Nov. Herb. Hort. Then., t. 81—*vide* sub *Olax scandens*.

Elytranthe affinis, *Craib*, ab *E. evenia*, Engler, calyce majore, corollae lobis reflexis, ab *E. hypoglauca*, Craib (*Loranthus hypoglaucus*, Kurz) foliorum nervis pagina utraque magis prominulis, receptaculo multo breviore recedit.

Folia lanceolata vel ovato-lanceolata, apice obtusa, basi in petiolum brevem attenuata, 3·3–10 cm. longa, 1·3–4·2 cm. lata, coriacea, utrinque glabra, supra pallide viridia, subtus subglauca, nervis lateralibus utrinque circiter 7 intra marginem arcuatis pagina utraque, superiore magis, prominulis. *Pedunculi* perbreves, axillares, solitarii vel gemini, 2-flori ; pedicelli vix 3 mm. longi, ut pedunculi glabri ; bracteae cum bracteolis duobus parvae, persistentes. *Receptaculum* tubulosum, 1·5 mm. longum, vix 1 mm. diametro, glabrum. *Calyx* conspicuus, subtruncatus vel irregulariter lobatus, 0·5 mm. altus, glaber. *Corollae* rubrae (ex *Kerr*) tubus 2·1 cm. longus, superne sensim dilatatus, apice 3 mm. diametro, lobi 6, subaequales, medio reflexi, lineari-spatulati, acuti, parte reflexa 7 mm. longa. *Stamina* exserta, filamentis glabris 4·5 mm. longis. *Stylus* glaber, stamina paullo superans, stigmate parvo capitato. *Fructus* aurantiacus (ex *Kerr*), globosus, circiter 1 cm. diametro, calycem stylique partem basalem persistentes gerens.—*Craib*, Kew Bull. 1911, p. 454.

Chiengmai, Doi Sootep, in evergreen jungle, 1140 m., *Kerr*, 1318.

Elytranthe ampullacea, *Engler*. *Loranthus ampullaceus*, Roxb.—F.B.I., v. p. 220 ; For. Fl. Burma, ii. p. 316.

Chiengmai, Doi Sootep, 660 m., *Kerr*, 1712.

Distr. Indo-China, Malay Peninsula.

Viscum articulatum, *Wall.*—F.B.I., v. p. 226 ; For. Fl. Burma, ii. p. 325 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 121.

Chiengmai, Doi Sootep, 420m., *Kerr*, 1301—parasitic on *Loranthus*.

Distr. S.E. Asia.

Kerr's plant is probably the form *fragile* (Wall., *pro sp.*).

Viscum sp. near *V. orientale*, Willd.

Chiengmai, 300 m., *Kerr*, 818.

Included in *V. orientale* only in sensu lato, for under that species there are included several well marked forms.

Ginalloa siamica, *Craib*, a *G. Helferi*, Kurz, foliorum forma, spicis longioribus crassioribus recedit.

Ramuli validi, basi incrassato-vaginati, glabri, cortice plerumque viridescente irregulariter fisso obtecti. *Folia* elliptica, oblongo-elliptica vel oblongo-obovata, apice rotundata, basi cuneata vel late

cuneata, 2·5–6 cm. longa, 1·35 cm. lata, coriacea, glabra, e basi 5-nervia, nervis utrinque conspicuis, petiolo brevi suffulta. *Spicae* ad 8·5 cm. longae, rhachi vix 2 mm. diametro.—*Craib*, Kew Bull. 1911, p. 455.

Chiengmai, Doi Sootep, 420 m., *Kerr*, 1300—on *Pentacme siamensis*.

Santalaceae.

Henslowia sessilis, *Craib*, ab *H. heteroantha*, Hook. f. et Th. et *H. frutescente*, Benth., fructu sessili recedit.

Ramuli glabri, cortice brunneo obtecti, ad 2·5 mm. diametro; ramorum cortex cinereo-brunneus, irregulariter longitudinaliter fissus. *Folia* ovato-lanceolata, apice obtusa, basi in petiolum brevem attenuata, 2·5–7·5 cm. longa, 1·3–3·3 cm. lata, coriacea, utrinque glabra, e basi trinervata, pedatim 5-nervata, nervis utrinque conspicuis, nervis transversis plerumque subconspicuis. *Flores* ♂ axillares, fasciculati, petiolis subaequales. *Fructus* vix maturus, basi bracteolis parvis ciliatis instructus.—*Craib*, Kew Bull. 1911, p. 455.

Chiengmai, Doi Sootep, 1050 m., *Kerr*, 1768.

Scleropyron Wallichianum, *Arnott*—F.B.I., v. p. 234; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 121.

Doi Saket, Ban Sun Pah Suk, in deciduous jungle, *Kerr*, 1026; Chiengmai, Doi Sootep, 330–660 m., *Kerr*, 1701, 1711.

Distr. S. India, Ceylon, Burma.

Lao name, Mä Kräu Nam (ex *Kerr*).

Osyris arborea, *Wall.*—F.B.I., v. p. 232. *O. Wightiana*, Hosseus, ii. p. 385.

Doi Chieng Dao, 2160 m., *Hosseus*, 394.

Distr. India, Indo-China, Yunnan.

Euphorbiaceae.

Euphorbia hypericifolia, *Linn.*—F.B.I., v. p. 249; Hosseus, ii. p. 404.

Kau Phra Dang, 200–320 m., *Hosseus*, 153.

Widely distributed in the tropics.

Euphorbia Kerrii, *Craib*, ab *E. sessiliflora*, Roxb., ovario longe stipitato recedit.

Rhizoma perenne, carnosum, ad 9 cm. longum, 4 cm. diametro, *Caules* solitarii vel raro 3, 16–25 cm. alti, 5 mm. diametro, altius sulcati, glabri. *Folia* reducta, anguste elliptica, acuta, dorso carinata, 3 mm. longa, vix 2 mm. lata, glabra, petiolo brevi terete suffulta; stipulae minutae. *Cymae* sessiles; bracteae ovato-lanceolatae, acuminatae, 5 mm. longae, 2·5 mm. latae, involucrum duplo excedentes, dorso medio carinatae, glabrae. *Involucrum* circiter 5 mm. diametro, glabrum, e glandulis 5 et lobis 5 elliptico-obovatis fimbriatis; glandulae contiguae, transverse oblongae, 1 mm. longae, 2 mm. latae, integrae. *Ovarium* glabrum, acute triangulare, pedicello circiter 8 mm. longo glabro exsertum, recurvum. *Stylus* 0·5 mm. longus; rami ad 1·5 mm. longi, glabri. *Capsula* 6 mm. alta, circiter 8 mm. diametro, glabra; semina subglobosa, ad 3 mm. diametro, albida, minutius arcte pustulata.—*Craib*, Kew Bull, 1911, p. 455.

Near Lakon, in deciduous bamboo jungle, 300 m., *Kerr*, 974.
Distr. Upper Burma: Shan States, *Robertson*.
Lao name, Chĭdĭ Dooan (ex *Kerr*).
According to Dr. Kerr the root is used by the natives for poisoning fish.

Euphorbia Lacei, *Craib*, ab *E. antiquorum*, Linn., spinis brevioribus, involucris subsessilibus vel breviter pedunculatis recedit.
Arbor ad 3·5 m. alta (ex *Kerr*); ramuli floriferi 17–25 cm. longi, sicco ad 2·5 cm. diametro, succulenti, glabri; anguli 3, alaeformes, distanter dentati, dentibus ad 5 cm. distantibus; spinae geminae, parvae, divaricatae, fusco-brunneae. *Bracteae* late ellipticae, 3·5 mm longae, 3·5 mm. latae. *Involucra* solitaria, subsessilia vel breviter pedunculata, vix 1 cm. diametro, glabra, e glandulis 5 et lobis 5 fimbriatis circiter 2 mm. longis et latis glabris constituta; glandulae transverse oblongae, 4·25 mm. latae, 2 mm. longae, glabrae.—*Craib*, Kew Bull. 1911, p. 456.
Lakon, Hooey Meh Tan, 600 m., *Kerr*, 1018.
Distr. Burma, Hantawaddy, Yoma Reserve, *Lace*, 2920.
The lateral involucres of the cyme which are not developed in any of the above specimens will probably bear the female as no trace of an ovary is found in the developed terminal involucres.

Euphorbia linearifolia, *Hosseus*, ii. p. 404, *an* Roth?
Pitsanulok, Ban Jang, 120 m. (ex *Hosseus*).
Distr. Deccan Peninsula (ex *F.B.I.*, v. p. 249).

Euphorbia serrulata, *Reinw.*
Chiengmai, among grass in open jungle on Doi Kum, 420 m., *Kerr*, 1656.
Distr. Formosa, Macao, Philippines, Tonkin, Malay Archipelago.

Euphorbia thymifolia, *Burm.*—F.B.I., v. p. 252.
Chiengmai, 300 m., *Kerr*, 1475—"a garden weed."
Distr. S.E. Asia.

Euphorbia congenera, Williams, Bull. Herb. Boiss., v. (1905) p. 32, an Bl.?
The specimens quoted by Williams l.c. under this species agree rather with the description of *E. reniformis*, Bl., but in the absence of authentic material the writer cannot refer them definitely to either species.

Bridelia affinis, *Craib*, *B. pubescenti*, Kurz, habitu similis sed inflorescentia fere glabra facile distinguenda.
Arbuscula ad 6 m. alta (ex *Kerr*); ramuli primo parce ferrugineo-pilosi, mox glabri, cortice rubro-brunneo parce lenticellato obtecti. *Folia* obovato-elliptica vel oblanceolata, apice rotundata vel plerumque breviter obtuse acuminata, basi obtusa, 5–15 cm. longa, 2–6 cm. lata, chartacea, supra costa nervisque praecipue pilosula, subtus parce molliter pilosa, nervis lateralibus utrinque 10–14 ad marginem excurrentibus supra conspicuis subtus cum nervis transversis prominentibus; petioli ad 7 mm. longi, teretes, breviter pilosi; stipulae deciduae, circiter 5 mm. longae, 1 mm. latae. *Inflorescentia* axillaris, sessilis. *Floris* ♀ calycis segmenta triangularia, acuta, 1·5 mm. longa, 1·5 mm. lata, quam petala

circiter duplo longiora. *Ovarium* glabrum, 0·75 mm. altum ; styli duo, 1 mm. longi. *Floris* ♂ calyx calyci ♀ similis. *Stamina* 5. *Ovarii* rudimentum parvum.—*Craib*, Kew Bull. 1911, p. 456.

Chiengmai, in evergreen jungle on Doi Sootep, 600 m., *Kerr*, 809.

Bridelia retusa, *Spr.*—F.B.I., v. p. 268 ; For. Fl. Burma, ii. p. 368.

Chiengmai, in eng jungle on Doi Sootep, 330 m., *Kerr*, 798.

Distr. India, Burma.

Bridelia stipularis, *Blume*—F.B.I., v. p. 270, pro parte ; For. Fl. Burma, ii. p. 369 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 122 ; Hosseus, ii. p. 404.

Chiengmai, Doi Sootep, 330 m., *Kerr*, 1460 ; Phre, 156–240 m., *Luang Vanpruk*, 128 ; Kampeng, *Hosseus*, 25.

Distr. S.E. Asia.

Bridelia tomentosa, *Blume*—F.B.I., v. p. 271 ; For. Fl. Burma, ii. p. 367.

Chiengmai, in open jungle near a village, *Kerr*, 915 ; Sriracha, in scrub jungle, below 15 m., *Kerr*, 2143 ; Nawng Kaw, edge of clearing in evergreen jungle, 30 m., *Kerr*, 2052.

Distr. N. India to China and southwards to Australia.

Andrachne australis, *Muell.-Arg.*, var. **genuina**, *Muell.-Arg.*

Sriracha, Nawng Kaw, in evergreen jungle, 30 m., *Kerr*, 2045.

Distr. Philippines [Java—ex *Muell.-Arg.*].

Sauropus albicans, *Blume*—F.B.I., v. p. 332 ; For. Fl. Burma, ii. p. 349.

Chiengmai, 300 m., on waste ground, *Kerr*, 760.

Distr. S.E. Asia.

Sauropus brevipes, *Muell.-Arg.*—F.B.I., v. p. 335.

Chiengmai, Doi Sootep, in deciduous jungle, 330 m., *Kerr*, 1339.

Distr. Burma.

Sauropus (Ceratogynum) rigidus, *Craib*, a *S. concinno*, Coll. et Hemsl., floribus ♂ fere duplo majoribus eorum sepalis latioribus apice retusis vix emarginatis foliorumque forma recedit.

Suffrutex ad 6 dm. altus (ex *Kerr*), omnino glaber ; rami ad 3 mm. diametro, cortice striato. *Folia* subelliptica, ovato-lanceolata vel lanceolata, mucronata, basi interdum inaequalia, obtusa vel subrotundata, 1·2–4·1 cm. longa, 0·7–1·7 cm. lata, rigida, nervis lateralibus utrinque 4–5 pagina utraque conspicuis, margine recurvo ; petioli 2–3 mm. longi ; stipulae parvae, rigidae. *Flores* ♂ in racemos breves axillares conspicue bracteatos dispositi, pedicellis fere 5 mm. longis suffulti. *Sepala* 6, apice retusa, 2 mm. longa, vix 2 mm. lata. *Discus staminaque* generis. *Flores* ♀ solitarii, pedicellis 3 mm. longis suffulti. *Sepala* 6, subrotundata, breviter acuminata, exteriora 3 mm. longa, 3·5 mm. lata, quam interiora paullo majora. *Ovarium* 1·5 mm. altum ; styli 3, subpatuli, bifidi.—*Craib*, Kew Bull. 1911, p. 457.

Chiengmai, in deciduous jungle on Doi Sootep, 300–1560 m., *Kerr*, 651, 1825.

Sauropus similis, *Craib*, a *S. brevipede*, Muell.-Arg., foliorum forma, a *S. quadrangulari*, Muell.-Arg., ramulis foliisque vix glabris, florium ♂ perianthii segmentis latioribus recedit.

Suffrutex sarmentosus, vix 1 m. altus (ex *Kerr*); rami quadrangulares, virides, cito glabri; ramuli quadrangulares, angulis setulis rigidis instructi. *Folia* ovato-lanceolata vel lanceolata, apice acutiuscula, mucronata, basi late cuneata vel subrotundata, 1–3 cm. longa, 0·7–1·4 cm. lata, chartacea, supra costa marginesque versus setulosa, subtus costa nervisque setulosa, nervis lateralibus utrinque 4–5 intra marginem arcuatis supra plerumque conspicuis subtus prominentibus, breviter petiolata; stipulae anguste deltoideae, acutae, ad 1 mm. longae, dorso carinatae. *Flos* ♂ circiter 2 mm. diametro. *Discus staminaque* generis. *Flos* ♀ 4·5 mm. diametro. *Sepala* 6, subrhomboidea, apice rotundata, apiculata, 2·25 mm. lata. *Styli* 0·5 mm. longi.—*Craib*, Kew Bull. 1911, p. 457, in part.

Chiengmai, in evergreen jungle on Doi Sootep, 720 m., *Kerr*, 1788.

Sauropus similis, *Craib*, var. **microphylla**, *Craib*, var. nov., foliis minoribus a *S. simili* vero recedit.—*S. similis*, Craib, Kew Bull. 1911, p. 457, in part. *Phyllanthus parvifolius*, Hosseus, ii. p. 407, *non* Ham.

Wang Djao, 100 m., *Hosseus*, 48.

This collection of Hosseus is but poorly represented in Herb. Kew. It differs from *S. similis* somewhat in habit as well as the smaller leaves.

Glochidion assamicum, *Hook. f.*, F.B.I., v. p. 319.

Meh Ping, Chieng Dao, 420 m., *Kerr*, 1056.

Distr. India, Burma, Assam.

Glochidion coccineum, *Muell.-Arg.*—F.B.I., v. p. 308; For. Fl. Burma, ii. p. 342.

Chiengmai, Doi Sootep, in deciduous jungle, 300–450 m., *Kerr*, 739.

Distr. Burma.

Glochidion Daltoni, *Kurz*, For. Fl. Burma, ii. p. 344; F.B.I., v. p. 320. *G. Hohenackeri*, Hosseus, ii. p. 405, *non* Bedd.

Lakon, Hooey Meh Tan, 420 m., *Kerr*, 1016; Chiengmai, Doi Sootep, 660–1000 m., *Kerr*, (? 1281), 1723, *Hosseus*, 431.

Distr. Sikkim, Yunnan, Burma.

Lao name, M'Kai (ex *Kerr*).

Glochidion Kerrii, *Craib*, ab affini *G. villicaule*, Hook. f., stylo longiore tenuiore altius bifido recedit.

Arbuscula circiter 6 m. alta (ex *Kerr*); ramuli juventute densius albido vel ferrugineo-hirsuti, mox glabri; rami cortice cinereo vel rubro-cinereo lenticellato obtecti. *Folia* lanceolata vel ovato-lanceolata, apice acuta, basi parum inaequalia, obtusa vel rotundata, 1–6·5 cm. longa, 0·8–2·8 cm. lata, rigide chartacea, supra costa parce hirsuta, cetera subglabra, subtus, costa nervisque praecipue, pilosa, nervis lateralibus utrinque 4–5 supra conspicuis vel maturis leviter impressis subtus prominentibus nervis transversis paucis subtus subprominulis; petioli breves, indumento ut ramuli. *Flores* ♂ pedicellis 8 mm. longis pilis paucis patulis instructis suffulti. *Sepala* 3 exteriora elliptica, apice obtusa, 1·75 mm. longa, 1 mm. lata, indumento dorso ut pedicelli, interiora late oblanceolata, 1·75 mm. longa, 0·75 mm. lata, fere glabra. *Stamina*

3, connata, columna brevissima, connectivis productis. *Flores* ♀ subsessiles. *Stylus* ad 2·5 mm. longus, apice trilobatus, lobis vix 1 mm. longis, pilis longiusculis patulis albidis densius instructus.—*Craib*, Kew Bull. 1911, p. 458.

Chiengmai, Doi Sootep, 720 m., *Kerr*, 1070.

Since the above description was drawn up there has been received a further collection of evidently the same species from evergreen jungle at 1260 m. elevation on Doi Sootep (*Kerr*, 1514).

Glochidion velutinum, *Wight*—F.B.I., v. p. 322 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 124. *G. lanceolarium*, Hosseus, ii. p. 405, *non* Voigt. *Phyllanthus nepalensis*, Muell.-Arg.—For. Fl. Burma, ii. p. 344.

Chiengmai, Doi Sootep, 1650 m., *Kerr*, 675, 1321, *Hosseus*, 501 (Herb. Kew! et Copenhagen!).

Distr. India, Burma, Assam.

The Indo-Chinese form of this species is not quite typical and may have eventually to be separated as a distinct species.

Glochidion sp. *G. velutinum*, Hosseus, ii. p. 405, *non* Wight.

Ban Djan, 300 m., *Hosseus*, 452 (♂ only).

Phyllanthus columnaris, *Muell.-Arg.*—F.B.I., v. p. 291 ; For. Fl. Burma, ii. p. 347.

Chiengmai, in mixed jungle on Doi Sootep, 360 m., *Kerr*, 1402 ; Phre, 120 m., *Luang Vanpruk*, 180.

Distr. Burma.

Lao name, Kow San (ex *Luang Vanpruk*).

Phyllanthus Emblica, *Linn.*—F.B.I., v. p. 289 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 123. *Cicca Emblica*, Kurz, For. Fl. Burma, ii. p. 352.

Chiengmai, Doi Sootep, 300–750 m., *Kerr*, 551.

Distr. S.E. Asia.

Lao name, Ma Kam Paum (ex *Kerr*).

Phyllanthus Niruri, *Linn.*—F.B.I., v. p. 298.

Chiengmai, 300 m., *Kerr*, 1444—"a garden weed."

Distr. Tropics except Australia.

Phyllanthus reticulatus, *Poir.*—F.B.I., v. p. 288 ; Hosseus, ii. p. 407. *Cicca reticulata*, Kurz, For. Fl. Burma, ii. p. 354.

Chiengmai, on rocks by a stream on Doi Sootep, 540 m., *Kerr*, 1131 ; Bangkok, *Zimmermann*, 132 ; Meh Ping Rapids, Ok Ma, 135 m., on sand banks in river, *Kerr*, 2185.

Distr. E. Asia, Tropical Africa.

Phyllanthus simplex, *Retz.*—F.B.I., v. p. 295.

Chiengmai, in open spots in mixed jungle on Doi Sootep, 300–450 m., *Kerr*, 682.

Distr. E. Asia.

Phyllanthus (Reidia) sootepensis, *Craib*, a *P. pulchro*, Muell.-Arg., ramis glabris recedit.

Fruticulus ad 1·2 m. altus (ex *Kerr*), omnino glaber ; rami teretes, ad 3·5 mm. diametro, cortice rubro vel rubro-brunneo irregulariter longitudinaliter fisso obtecti ; ramuli simplices, alterni, teretes, graciles, ad 20 cm. longi. *Folia* plus minusve elliptica,

apiculata, basi obtusa, inaequalia, 5–13 mm. longa, 3–7 mm. lata, supra fusca, subtus pallida, rigida, nervis lateralibus utrinque 4–5 intra marginem arcuatis pagina neutra conspicuis ; petioli breves ; stipulae circiter 3 mm. longae. *Flores* ♂ pedicellis 5–6 mm. longis suffulti. *Sepala* 4, subrhomboidea, irregulariter serrata, 1·5 mm. longa, 1·5 mm. lata. *Disci* glandulae 4, sepalis alternae, transverse ellipticae. *Stamina* 4, filamentis in columnam brevem apiculatam (ob ovarii rudimentum ?) connatis. *Flores* ♀ pedicellis ad 7 mm. longis suffulti. *Sepala* 6, anguste obovata, apice rotundata, 1·25 mm. longa, 0·75 mm. lata, glabra. *Disci* glandulae basi plus minusve connatae, ovario dimidio breviores. *Ovarium* 0·75 mm. altum ; styli suberecti, bifidi.—*Craib*, Kew Bull. 1911, p. 459.

Chiengmai, by a stream on Doi Sootep, 480 m., *Kerr*, 657.

Phyllanthus sp. n. ?

Angkor, *Godefroy-Lebeuf*, 682.

Phyllanthodendron album, *Craib et Hutchinson*, Kew Bull. 1910, p. 279.

Chiengmai, on old clearings on Doi Sootep, 720–810 m., *Kerr*, 521, 566.

Phyllanthodendron mirabile, *Hemsl.*, Hook. Ic. Pl., t. 2563–64. *Phyllanthus mirabilis*, Muell.-Arg.

Bangkok, *Schomburgk.*

The leaf specimens referred to by Williams, Bull. Herb. Boiss., v. (1905) p. 50 evidently do not belong to this species or in fact to *Euphorbiaceae.*

Phyllanthodendron roseum, *Craib et Hutchinson*, Kew Bull. 1910, p. 23 ; Hook. Ic. Pl., t. 2935.

Chiengmai, in evergreen jungle by a stream on Doi Sootep, 730 m., *Kerr*, 697.

var. **siamensis**, *Craib. P. siamensis*, Hosseus, Fedde Rep. Nov. Sp., x. p. 116. *Uranthera siamensis*, Pax et K. Hoffm., Engler Pflanzenr., Euphorb.-Cluytieae, p. 95.

Chiengmai, Doi Sootep, 1600 m., *Hosseus*, 505.

As noted in Hook. Ic. Pl., l.c. Pax did not feel justified in retaining Hemsley's genus *Phyllanthodendron* and followed Mueller in treating Schomburgk's plant as a *Phyllanthus.* But there is nothing to separate generically the plant collected by Hosseus and made the type of the new genus *Uranthera* by Pax and Hoffmann from Schomburgk's plant. In floral detail Hosseus 505 agrees with the type of *Phyllanthodendron roseum* except that the ovary is glabrous. The petaloid disk glands have been regarded by Pax and Hoffmann as true petals and they have therefore placed the plant in the tribe *Cluytieae.*

Hosseus, ii. p. 406, enumerates this plant as *P. roseum*, var. *glabrum*, Craib. I had intended using that name until Dr. Hosseus drew my attention to the publication of *Uranthera siamensis.* For the sake of uniformity I then adopted the varietal name *siamensis* although it was not an ideal name to use for a genus which at that time was known only from Siam.

Fluggea microcarpa, *Blume*—F.B.I., v. p. 328 ; Williams, Bull. Herb. Boiss., v. (1905) p. 29 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 124 ; Hosseus, ii. p. 404. *Cicca obovata*, Kurz, For. Fl. Burma, ii. p. 354.

Chiengmai, Doi Sootep, 300–900 m., *Kerr*, 1116, 1884 ; between Kampeng and Wang Djao, *Hosseus*, 22 ; Meh Ping, Muang Hawt, 240 m., *Kerr*, 2015.

Distr. N. India eastwards to China and southwards to Australia, Trop. Africa.

Breynia glauca, *Craib*, a *B. fruticosa*, Hook. f., cui affinis, stylis erectis recedit.

Fruticulus omnino glaber ; rami primo compressi, mox teretes, cortice rubro-brunneo striato obtecti ; ramuli teretes, plerumque flexuosi. *Folia* ovato-lanceolata, apice mucronata, basi obtusa vel subrotundata, 2·8–5·5 cm. longa, 1·5–2·7 cm. lata, coriacea, supra sicco brunnea, subtus glauca parceque punctata, nervis lateralibus utrinque 5–6 supra conspicuis vel subobscuris subtus subprominulis intra marginem arcuatis, margine recurvo ; petioli graciles, circiter 3 mm. longi ; stipulae parvae, rigidae, plerumque deciduae. *Floris* ♂ pedicelli 4 mm. longi. *Calyx* turbinatus, 2 mm. longus, lobis inflexis. *Stamina* 3, filamentis in columnam connatis, connectivo breviter producto. *Flores* ♀ breviter pedicellati. *Calycis* tubus 2 mm. longus, 3-angulatus, lobi 6, interiores 1 mm. longi, quam exteriores paullo majores. *Styli* 3, erecti, apice bifidi, 0·75 mm. alti, ovario 1 mm. alto superne carnoso. *Bacca* depresso-globosa, 5 mm. alta, 8 mm. diametro.—*Craib*, Kew Bull. 1911, p. 460.

Chiengmai, Doi Sootep, by side of a stream, 450 m., *Kerr*, 864.

Since the above description was drawn up another collection of evidently the same species has been received (*Kerr*, 1126, from Doi Sootep, 840 m.) which differs from the type in the slightly larger leaves which are not so closely set on the branchlets and the much poorer inflorescence.

Breynia rhamnoides, *Muell.-Arg.*—F.B.I., v. p. 330 ; For. Fl. Burma, ii. p. 350.

Bangkok, *Zimmermann*, 55.

Distr. S.E. Asia.

Putranjiva Roxburghii, *Wall.*—F.B.I., v. p. 336 ; For. Fl. Burma, ii. p. 366.

Near Chiengmai, Meh Hia, 330 m., *Kerr*, 1408 ; Lower Siam, *Witt*, 36.

Distr. India, Burma, Assam.

According to Witt a medicine for rheumatism is made out of the leaves and fruit.

Bischofia javanica, *Blume*—F.B.I., v. p. 345 ; For. Fl. Burma, ii. p. 355.

Muang Prow, Ban Long Kaut, by streams, 600 m., *Kerr*, 1028 ♀ ; Meh Ping, Chieng Dao, by streams, 390 m., *Kerr*, 1028a ♂.

Distr. S.E. Asia (except Ceylon), Pacific Is.

Daphniphyllum laurinum, *Baill.*—F.B.I., v. p. 353.

Chiengmai, in evergreen jungle on Doi Sootep, 1200–1260 m., *Kerr*, 1824 ♂, 1816 ♀.

Distr. Malaya.

Baccaurea sapida, *Muell.-Arg.*—F.B.I., v. p. 371; For. Fl. Burma, ii. p. 356; Williams, Bull. Herb. Boiss., v. (1905) p. 30, pro parte; Hosseus, ii. p. 403 (*forma*).

Chiengmai, Doi Sootep, 660 m., *Kerr*, 1095; mountains between Lampoon and Lakon, 600 m., *Kerr*, 968; Phre, 240 m., *Luang Vanpruk*, 231; Bangkok, *Schomburgk*, 110, ? *Zimmermann*, 88.

Distr. S.E. Asia.

Lao name, Ma Fai (ex *Kerr*), Ma Foi (Pu) (ex *Luang Vanpruk*).

Aporosa Roxburghii, *Baill.*—F.B.I., v. p. 347; For. Fl. Burma, ii. p. 362.

Chiengmai, Doi Sootep, 660 m., *Kerr*, 1689.

Distr. Sikkim Himalayas, Burma, Assam.

Aporosa villosa, *Baill.*—F.B.I., v. p. 345; For. Fl. Burma, ii. p. 361; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 124.

Chiengmai, in deciduous jungle on lower slopes of Doi Sootep, 300–600 m., *Kerr*, 552 ♀, 552a ♂.

Distr. Burma, Cochinchina.

Aporosa Wallichii, *Hook. f.*, F.B.I., v. p. 350.

Chiengmai, in evergreen jungle on Doi Sootep, 750 m., *Kerr*, 1681 ♀, on edge of old clearing on Doi Sootep, 810 m., *Kerr*, 520 ♂.

Distr. Bengal, Assam, Burma.

Aporosa sp. n.?

Chiengmai, in deciduous jungle on Doi Sootep, 750 m., *Kerr*, 958—female specimens only collected.

Antidesma Collettii, *Craib*, ab affini *A. cuspidato*, Muell.-Arg., ovarii rudimento columnari haud globoso, floris ♀ disco glabro fructu majore pedicello longiore crassiore recedit.

Ramuli primo parce ferrugineo-pilosi, mox glabri, cortice rubro-brunneo lenticellato obtecti. *Folia* elliptico-oblanceolata, oblonga vel raro elliptico-lanceolata, apice plerumque acuminata, acuta, basi cuneata vel rotundata, 7·5–22·5 cm. longa, 2–7 cm. lata, subcoriacea, glabra, nervis lateralibus utrinque 7–9 intra marginem arcuatis supra subprominulis subtus prominulis; petioli ad 1·3 cm. longi. *Spicae* ♂ simplices vel paniculatae, ad 15 cm. longae, breviter pedunculatae; rhachis tomentella, plus minusve glabrescens; bracteae lanceolatae, acutae, circiter 1 mm. longae. *Calyx* breviter irregulariter lobatus. *Stamina* 3, filamentis 2·5 mm. longis glabris. *Ovarii* rudimentum columnare, vix 1 mm. altum, parce pubescens. *Racemi* ♀ spiciformes, 7–11 cm. longi, breviter pedunculati; pedicelli circiter 1 mm. longi, pilosuli; bracteae pedicellis dimidio breviores. *Calyx* 1 mm. longus, 1 mm. diametro, breviter lobatus, extra fere glaber, intra subvillosus. *Discus* breviter cupularis, glaber. *Ovarium* glabrum, circiter 1·5 mm. altum; stigmata brevia, terminalia. *Fructus* pedicello 4 mm. longo suffultus, 6–7 mm. longus, 5–6 mm. latus, circiter 4 mm. crassus, rubro-brunneus, lenticellatus.—*Craib*, Kew Bull. 1911, p. 461. *A. cuspidatum*, Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 124, *vix* Muell.-Arg.

Burma, Shan Hills, 1500 m., *Collett*, 636 ♂.

Chiengmai, by streams in evergreen jungle on Doi Sootep, 660–900 m., *Kerr*, 1115 (♂), 1117 (♀), 1253 (fruit).

The plant described above is probably more nearly related to *A. Bunius*, Spreng. than to *A. cuspidatum*, Muell.-Arg. From the former it differs in its larger leaves and by the ovary which in *A. Bunius* is long exserted but in *A. Collettii* is included in the calyx to about the middle. *A. Bunius* and *A. Collettii* have very similar male flowers and inflorescences.

Antidesma diandrum, *Roth*—F.B.I., v. p. 361 ; For. Fl. Burma, ii. p. 360 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 125.

Chiengmai, in deciduous jungle on lower slopes of Doi Sootep, 300–600 m., *Kerr*, 608, 608a.

Distr. India, Burma, Assam.

Antidesma Kerrii, *Craib*, *A. nigrescenti*, Tul., similis sed ovario haud glabro facile distinguenda.

Arbuscula ad 7·5 m. alta (ex *Kerr*) ; ramuli juventute densius molliter pubescentes, pilis plus minusve persistentibus. *Folia* oblonga, oblongo-elliptica vel elliptico-oblanceolata, apice acuminata, acuta, basi obtusa vel subrotundata, 4–12 cm. longa, 1·5–4·3 cm. lata, chartacea, utrinque costa nervisque sed costa densius pubescentia, nervis lateralibus utrinque 7–8 intra marginem arcuatis supra conspicuis subtus prominentibus nervis transversis paucis subtus prominulis ; petioli ad 6 mm. longi, indumento ut ramuli ; stipulae lineares, ad 3 mm. longae, dorso pubescentes. *Racemi* ♂ solitarii vel parum paniculati, vix 3 cm. longi, laxi ; pedicelli 0·5 mm. longi, bracteis pedicellis subaequalibus. *Sepala* 4, 0·5 mm. longa, 0·75 mm. lata. *Discus* cum ovarii rudimento parvo glaber. *Stamina* 4, filamentis circiter 1 mm. longis glabris. *Spicae* ♀ solitariae, terminales, densiusculae ; bracteae calycem subaequantes. *Calycis* circiter 0·5 mm. longi segmenta 4, dentata. *Discus* annularis, carnosus, glaber. *Ovarium* longe exsertum, oblique ellipsoideum, 1 mm. altum, parce adpresse pilosulum.—*Craib*, Kew Bull. 1911, p. 462.

Chiengmai, in thick evergreen jungle on Doi Sootep, 1200 m., *Kerr*, 618 ♂, 618a ♀.

Antidesma sootepensis, *Craib*, *A. Moritzii*, Muell.-Arg., peraffinis sed stipulis omnibus deciduis, foliis minoribus, spicis ♂ densis, calyce filamentis antheris ovariique rudimento longioribus, bracteis ♀ minoribus, calyce breviore, ovario minore magis globoso haud tam exserto differt.

Suffrutex 3–3·5 m. altus (ex *Kerr*) ; ramuli primo ferrugineo-tomentelli, mox glabri vel subglabri, cortice rubro-brunneo parce lenticellato obtecti. *Folia* plerumque oblonga vel oblongo-oblanceolata, apice acuminata, acuta, rarissime obtusa, basi cuneata, 3–12·2 cm. longa, 1–2·9 cm. lata, chartacea, utrinque costa nervisque pubescentia et cetera subtus parcissime pubescentia, margine ciliata, nervis lateralibus utrinque 6–7 intra marginem arcuatis supra conspicuis subtus prominentibus nervis transversis supra conspicuis ; petioli 2–4 mm. longi, indumento ramulorum. *Spicae* ♂ terminales, paniculatae, ad 10 cm. longae, densae, pedunculo circiter 1 cm. longo suffultae, pedunculo ut rhachi tomentello. *Calyx* 4-lobatus, circiter 0·5 mm. altus, extra pubescens. *Discus* glaber ; ovarii rudimentum columnare, parcissime pubescens. *Stamina* 4, filamentis fere 1·5 mm. longis glabris. *Racemi* ♀ simplices, ad

5 cm. longi, pedunculo communi circiter 1 cm. longo suffulti; pedicelli validi, 0·5 mm. longi, pilosuli; bracteae parvae. *Calyx* ad 0·75 mm. longus, 4-lobatus, utrinque pubescens. *Discus* cupularis, subglaber. *Ovarium* anguste ellipsoideum, 0·75 mm. altum, glabrum.—*Craib*, Kew Bull. 1911, p. 463.

Chiengmai, in deciduous jungle on Doi Sootep, 720–750 m., *Kerr*, 676♂, 676a♀.

In describing the above species, which is very closely allied to *A. Moritzii*, I have taken into consideration *A. Moritzii* only as originally described by Mueller.

Jatropha gossypifolia, *Linn.*—F.B.I., v. p. 383.

Chiengmai, 300 m., *Kerr*, 712—"often abundant on waste ground."

Distr. Tropics.

Kerr's plant belongs to the variety *elegans*, Muell.-Arg.—Pax, Engler Pflanzenr., Euphorb.-Jatroph., p. 26. Pax l.c. p. 50 refers Zimmermann's 27 and 145 to *J. pandurifolia*, Andr., var. *latifolia*, Pax, but it would probably be equally right to follow Williams and refer them to *J. hastata*, Jacq.

Croton Cumingii, *Muell.-Arg.*

Lem Tong Lan, *Murton*, 122; Bangkok Palace Gardens, cultivated, *Murton*, 8: Sriracha, in evergreen jungle, 30 m., *Kerr*, 2141.

Distr. Philippines, Formosa, Loo-Choo Is., Tonkin, Malay Peninsula.

Croton Hutchinsonianus, *Hosseus*, Fedde Rep. Nov. Sp., x. p. 64.

Wang Djao, 150 m., *Hosseus*, 163 (Herb. Kew! Hoss.! et Copenhagen!); Phre, 120–180 m., *Luang Vanpruk*, 140.

Croton laevifolius, *Blume*, var.?

Chiengmai, Doi Sootep, in evergreen jungle, 660 m., *Kerr*, 1074.

There is no type of this species in Herb. Kew. The Siam plant differs from the Khasia specimens, referred here by Mueller, in the indumentum which, though of a similar nature, is more persistent and more pronounced on the inflorescence.

Croton oblongifolius, *Roxb.*—F.B.I., v. p. 386; For. Fl. Burma, ii. p. 373; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 125, pro parte.

Banks of streams at foot of Doi Sootep, 330 m., *Kerr*, 528; Chiengmai Plain, in scrub jungle, 300 m., *Kerr*, 528a, 528b; Phre, 156–240 m., *Luang Vanpruk*, 125.

Distr. India, Burma, Assam.

Croton robustus, *Kurz*, For. Fl. Burma, ii. p. 372; F.B.I., v. p. 387? *C. oblongifolius*, Hosseus, ii. p. 404, *non* Roxb.

Chiengmai, Doi Sootep, 660–800 m., *Hosseus*, 296 (Herb. Kew! et Copenhagen!), *Kerr*, 943, 1778.

Distr. Burma.

Croton tomentosus, *Muell.-Arg.*—F.B.I., v. p. 389.

Chiengmai, in deciduous jungle on Doi Sootep, 330 m., *Kerr*, 1851.

Distr. Burma—may be identical with the Chinese *C. crassifolius*.

Trigonostemon Murtonii, *Craib*, a *T. villoso*, Hook. f., foliis supra glabris subtus costa nervisque strigosis recedit.

Ramuli primo hirsuti, demum glabri, cortice brunneo obtecti. *Folia* oblanceolata vel oblongo-oblanceolata, apice acuminata, obtusa, basi obtusa vel truncata, 3·5–14 cm. longa, 1·1–4 cm. lata, supra glabra, subtus juventute costa nervisque strigosa, rigide chartacea, margine obscure denticulata, nervis lateralibus utrinque ad 13 intra marginem arcuatis supra conspicuis subtus prominentibus ; petioli ad 7 mm. longi, supra canaliculati, plus minusve glabrescentes. *Racemi* axillares, 2–3 cm. longi, pedunculo communi ad 3 cm. longo suffulti ; bracteae foliaceae, 1 cm. longae, 2 mm. latae, supra costa tantum, subtus parcius strigillosae. *Flos* ♂. *Sepala* 5, linearilanceolata, acuta, subaequalia, circiter 3 mm. longa, 1 mm. lata, extra strigosa, intra glabra. *Petala* 5, oblongo-obovata, subaequalia, ad 3·5 mm. longa, 1·75 mm. lata, parce setoso-ciliata. *Disci* glandulae 5, parvae, glabrae. *Filamenta*, nisi parte apicali brevissima libera, in columnam 0·75 mm. altam connata ; antherae 3. *Flos* ♀. *Sepala* 5, subaequalia, lanceolata, acutiuscula, extra pubescentia, intra glabra. *Petala* 5, inaequalia, elliptica vel obovato-oblonga, parcissime setosa. *Ovarium* hirsutum ; styli circiter ad medium bifidi.—*Craib*, Kew Bull. 1911, p. 464.

Koh Klone, *Murton*, 18.

The description of the female flower is drawn up from sketches by Sir J. D. Hooker on the sheet.

Trigonostemon reidioides, *Craib*, Kew Bull. 1911, p. 464, comb. nov. *Baliospermum reidioides*, Kurz—For. Fl. Burma, ii. p. 411 ; Williams, Bull. Herb. Boiss., v. (1905) p. 32.

Kanburi, *Teysmann*, 5981.

The date 1878 quoted by Williams l.c. is the date of receipt of the specimen at Kew from Calcutta and not the date of collection of the specimen.

Ostodes Kerrii, *Craib*, ab *O. paniculato*, Blume, foliis subtus in costarum axillis glabris, seminibus minoribus brunneis haud pictis, ab *O. thyrsantho*, Pax, inflorescentiae rhachi glabra, pedicellis distincte articulatis, capsula rostrata differt.

Arbor dioica, 6–9 m. alta (ex *Kerr*) ; ramuli validi, primo parce adpresse pilosuli, mox glabri. *Folia* ovato-lanceolata, elliptico-lanceolata vel lanceolata, apice acuminata, obtusiuscula, basi obtusa, 9–32·5 cm. longa, 3–11·8 cm. lata, chartacea, margine glanduloso-serrulata, supra glabra, subtus costa nervisque pilis brevibus perpaucis deciduis instructa, cetera glabra, nervis lateralibus utrinque 8–12 intra marginem arcuatis supra conspicuis subtus prominulis, basi biglandulosa, petiolis 1·3–2·5 cm. longis glabris vel subglabris suffulta. *Flores* ♂ in paniculas axillares dispositi ; pedunculi communes 2–5·5 cm. longi ; rhachis 6–14 cm. longa, glabra ; ramuli laterales ad 10, 3 cm. longi, circiter 5-flori ; pedicelli ad 5 mm. longi, infra medium articulati ; bracteae minutae. *Calyx* 5-partitus, segmentis inaequalibus ad 6·5 mm. longis, exterioribus extra parce pilosulis. *Petala* 5, alba, 7 mm. longa, 4·5 mm. lata, intra inferne pubescentia. *Disci* glandulae 1 mm. altae, 1·5 mm. latae, carnosae, subglabrae. *Stamina* circiter 30, filamentis inferne villosis. *Flores* ♀ in racemos plerumque ex axillis veteribus oriundos dispositi ; racemi ad 15 cm. longi, pauciflori, glabri, pedunculo brevi suffulti ; pedicelli 1 cm. vix attingentes, medio

articulati; bracteae parvae. *Calycis* segmenta ad 9 mm. longa, 7 mm. lata. *Petala* subaequalia, obovata vel subrotundata, ad 9 mm. longa, 8 mm. lata, intra inferne hirsutula. *Ovarium* dense albido-setosum, 5 mm. altum, 5 mm. diametro; styli 3, validi, 6 mm. longi, dorso hirsuti. *Capsula* vix 2·5 cm. alta, dura, ferrugineo-tomentella parceque setosa. *Semina* dorso carinata, circiter 1·2 mm. longa et lata, 9 mm. crassa, brunnea.—*Craib*, Kew Bull. 1911, p. 464.

Chiengmai, in evergreen jungle by streams on Doi Sootep, 660 m., *Kerr*, 1719 ♂, 750 m., *Kerr*, 1091 ♀, 720 m., *Kerr*, 1432 (fruit).

Mercurialis leiocarpa, *Sieb. et Zucc.*—Hosseus, ii. p. 406.

Doi Intanon, 2560 m., *Hosseus*, 359a (Herb. Kew! Hoss.! Copenhagen!).

Distr. Japan, China.

Acalypha Kerrii, *Craib*, *A. acmophyllae*, Hemsl., valde affinis sed petiolis brevioribus, floris ♀ bracteis transverse oblongis paucidentatis eiusque perianthii segmentis latioribus, stylis longioribus distinguenda.

Arbor parva (ex *Kerr*); ramuli primo tenuiter tomentelli, mox glabri, cortice rubro-brunneo striato interdum lenticellato obtecti. *Folia* ovata vel lanceolata, apice acuminata, acutiuscula, basi obtusa vel rotundata, 3·5–12·5 cm. longa, 1·5–7 cm. lata, tenuiter chartacea, serrata, supra matura glabra, pustulata, infra, costa nervisque praecipue, pubescentia, e basi trinervia, nervis secundariis (e costa ortis) utrinque 4–5 pagina utraque, inferiore magis, prominulis; petioli 0·5–3·5 cm. longi, indumento ramulorum; stipulae deciduae, lineares, apice attenuatae, ad 9 mm. longae, dorso parce pubescentes. *Spicae* axillares, androgynae, floribus ♀ 2–3 basin versus solitariis, ♂ fasciculatis, ad 3 cm. longae, pubescentes. *Flores* ♂ perfecti deficientes. *Bracteae* ovato-triangulares, concavae, circiter 0·5 mm. longae. *Flores* ♀ interdum solitarii, axillares (ob spicas ♂ delapsas?). *Bracteae* transverse oblongae, 4–5-dentatae, 2·5–3 mm. longae, 4–5 mm. latae, dorso parce pubescentes. *Calycis* segmenta deltoidea, obtusa, 0·75 mm. longa, 0·5 mm. lata. *Ovarium* hispidum, 0·75 mm. diametro; styli laciniati, ad 4 mm. longi, glabri.—*Craib*, Kew Bull. 1911, p. 465.

Chiengmai, in evergreen jungle on Doi Sootep, 900 m., *Kerr*, 1165.

Chloradenia discolor, *Baill.* *Cephalocroton discolor*, Muell.-Arg., var. *genuina*, Muell.-Arg.

Sriracha, in evergreen jungle, 15 m., *Kerr*, 2109.

Distr. Java, Cambodia.

Alchornea rugosa, *Muell.-Arg.*—F.B.I., v. p. 422; For. Fl. Burma, ii. p. 385.

Huai Tuam, 180 m., *Luang Vanpruk*, 227: Me Youak Phre, 240 m., *Luang Vanpruk*, 235.

Distr. Indo-China, Malaya.

Lao Name, Khang Poi (ex *Luang Vanpruk*).

Alchornea tiliaefolia, *Muell.-Arg.*—F.B.I., v. p. 421; For. Fl. Burma, ii. p. 386.

Chiengmai, by stream in evergreen jungle on Doi Sootep, 750 m., *Kerr*, 639.

Distr. Sikkim, Assam, Burma.

Trewia nudiflora, *Linn.*—F.B.I., v. p. 423; For. Fl. Burma, ii. p. 379.

Near Lampoon, by a stream, 360 m., *Kerr*, 967; Phre, 156–240 m., *Luang Vanpruk*, 123.

Distr. India, Assam, Burma, Malaya.

Cleidion javanicum, *Blume*—F.B.I., v. p. 444; For. Fl. Burma, ii. p. 390; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 125.

Muang Prow, Hooey Meh Wah, by a stream, 540 m., *Kerr*, 1040; Chiengmai, cultivated, 300 m., *Kerr*, 1082; Me Youak Phre, 240 m., *Luang Vanpruk*, 233.

Distr. S.E. Asia.

Lao name Mă Di Mi (ex *Kerr*), Madumu (ex *Luang Vanpruk*).

According to Kerr an oil is extracted from the fruit.

To this species belong the specimen collected by Collett and referred by Collett and Hemsley, l.c., to *Croton oblongifolius*, Roxb. and the specimen from Mu Valley collected by Smales referred to *Mallotus khasianus*, Hook. f., in Brandis, Indian Trees, p. 589.

Mallotus barbatus, *Muell.-Arg.*—F.B.I., v. p. 428; For. Fl. Burma, ii. p. 381; Hosseus, ii. p. 405.

Doi Saket, 1000 m. (ex *Hosseus*).

Distr. India, Assam, Burma, S. China, Malay Peninsula.

Mallotus cochinchinensis, *Lour.*—F.B.I., v. p. 430. *M. paniculatus*, Muell.-Arg.— For. Fl. Burma, ii. p. 383.

Chiengmai, Doi Sootep, by a stream in evergreen jungle, 720 m., *Kerr*, 1433.

Distr. China to Malay Archipelago.

Mallotus repandus, *Muell.-Arg.*—F.B.I., v. p. 442; For. Fl. Burma, ii. p. 380.

Chiengmai, in scrub jungle, 300 m., *Kerr*, 1672.

Distr. S.E. Asia.

Mallotus ricinoides, *Muell.-Arg.*—F.B.I., v. p. 430; For. Fl. Burma, ii. p. 382; Hosseus, ii. p. 406.

Doi Saket, 1000 m. (ex *Hosseus*).

Distr. India, Malaya.

Mallotus sp.—Hosseus, ii. p. 406.

Doi Intanon, 2460 m. (ex *Hosseus*).

Macaranga Andersoni, *Craib*, Kew Bull. 1911, p. 466, nom. nov. *M. membranacea*, Kurz, Journ. As. Soc. Beng., xlii. (1873) p. 246; F.B.I., v. p. 454; For. Fl. Burma, ii. p. 389, saltem pro parte, *non* Muell.-Arg. (1866).

Yunnan, Tut Yower, *D. J. Anderson*, 22/9/1868.

Chiengmai, in evergreen jungle on Doi Sootep, 1050–1200 m., *Kerr*, 1187, 1187*a*.

Of the type of Kurz's *M. membranacea* there is only a flowerless specimen in Herb. Kew. This particular specimen has all the leaves lobed. The specimen collected by Anderson which agrees exactly with those collected by Kerr shows no trace of lobing in the leaves and is named *M. membranacea* in Kurz's own handwriting. The specimens collected by Anderson, although not

quoted by Kurz in his original description, probably were used by him in his description at least so far as the simple leaves are concerned. In all probability Kurz's description includes two species, the Burmese one with lobed leaves and the Yunnan-Siam one with simple leaves for which the writer proposes the name *M. Andersoni*.

Macaranga denticulata, *Muell.-Arg.*—F.B.I., v. p. 446; For. Fl. Burma, ii. p. 387.

Chiengmai, by a stream in evergreen jungle on Doi Sootep, 750–900 m., *Kerr*, 1093.

Distr. Himalayas, Indo-China, Malaya.

Chaetocarpus castanocarpus, *Thw.*—F.B.I., v. p. 460; For. Fl. Burma, ii. p. 409.

Sriracha, Nawng Kaw, in evergreen jungle, 30 m., *Kerr*, 2057, 2072.

Distr. Chittagong, Assam, Burma, Malay Peninsula, Ceylon, Cambodia, Tonkin.

Homonoia retusa, *Muell.-Arg.*—F.B.I., v. p. 456; Hosseus, ii. p. 405.

Banks of Meh Ping at rapids, 200 m. (ex *Hosseus*).

Distr. India.

Homonoia riparia, *Lour.*—F.B.I., v. p. 455; For. Fl. Burma, ii. p. 401; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 126; Hosseus, ii. p. 405.

Meh Ping Banks, 150–350 m., *Kerr*, 506, *Hosseus*, 375; near Lakon, 300 m., *Kerr*, 975; Paknampo, common along River Menam, *Witt*, 11, 12.

Distr. S.E. Asia.

Lao name, Kai (ex *Kerr*).

Baliospermum axillare, *Blume*—F.B.I., v. p. 461; Williams, Bull. Herb. Boiss., v. (1905) p. 32; Coll. et. Hemsl., Journ. Linn. Soc., xxviii. p. 126. *B. montanum*, Muell.-Arg.—For. Fl. Burma, ii. p. 410.

Chiengmai, 300 m., on waste ground, *Kerr*, 942; Wang Djao, *Lindhard*, 77; Bangkok, *Schomburgk*, 134.

Distr. S.E. Asia (except Ceylon).

Baliospermum siamense, *Craib*, ab affini *B. calycino*, Muell.-Arg., petiolis inflorescentiisque brevioribus, floris ♀ sepalis latioribus, ovario subglabro, stylis suberectis gracilioribus recedit.

Fruticulus monoicus vel dioicus, simplex, 1·2–1·5 m. altus (ex *Kerr*); caules primo adpresse pubescentes et parce setosi, mox glabri. *Folia* plerumque oblanceolata vel anguste oblonga, apice acuminata, acuta, basi obtusa vel subrotundata, 8–23 cm. longa, 2·2–6·6 cm. lata, tenuiter chartacea, margine crasse distanter glanduloso-serrata vel rarissime subintegra, supra glabra vel costa tantum parcissime setosa, subtus costa nervisque lateralibus setosa, nervis transversis pilosula, nervis lateralibus utrinque 7–12 intra marginem arcuatis, supra conspicuis subtus prominulis, nervis transversis utrinque, subtus magis, conspicuis; petioli 0·8–5 cm. longi, indumento ut caulibus. *Paniculae* ♂ axillares, quam

folia multo breviores, ad 4 cm. longae, angustae, pedunculo communi ad 5 cm. longo suffultae, pilosulae; pedicelli vix 4 mm. attingentes; bracteae parvae. *Sepala* 5, suborbicularia, concava, circiter 1·5 mm. longa, membranacea, extra parce pilosula. *Stamina* ± 20, filamentis liberis circiter 2 mm. longis glabris. *Paniculae* ♀ axillares, pauciflorae, pedunculo ad 2·5 cm. longo suffultae; pedicelli ad 4 mm. longi; bracteae parvae. *Sepala* 5, variabilia, subaequalia, plerumque ovato-lanceolata, acuta, ad 4 mm. longa, 2 mm. lata, irregulariter pauci-serrata vel subintegra, dorso adpresse pilosula, fructescentia fere 1 cm. longitudinis attingentia. *Ovarium* 0·75 mm. altum, subglabrum; styli 3, basi breviter connati, apice bifidi. *Capsula* glabra, 7 mm. alta; semina brunnea, 5 mm. longa, 3·5 mm. diametro.—*Craib*, Kew Bull. 1911, p. 467.

Chiengmai in evergreen jungle on Doi Sootep, 1200–1260 m., *Kerr*, 790 (all dioecious), *Kerr*, 1365 (part monoecious, part dioecious).

Sapium insigne, *Benth.*—F.B.I., v. p. 471. *Carumbium insigne*, Kurz, For. Fl. Burma, ii. p. 412.

Muang Prow, Meh Kaut, 450 m., *Kerr*, 1031.

Distr. Himalayas, Bengal, Burma.

Excoecaria crenulata, Hosseus, ii. p. 404, *an* Wight?

Doi Saket, 1000 m. (ex *Hosseus*).

Distr. India.

Sebastiana Chamælea, *Muell.-Arg.*—F.B.I., v. p. 475.

Cape Liant, *Murton*, 27.

Distr. China southward to Australia and westward to Trop. Africa.

Ulmaceae.

Holoptelea integrifolia, *Pl.*—F.B.I., v. p. 481; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 126. *Ulmus integrifolia*, Roxb.—For. Fl. Burma, ii. p. 473.

Phre, Hooey Kamin, *Kerr*, 990.

Distr. India, Burma (? W. Trop. Africa).

Celtis tetrandra, *Roxb.*—F.B.I., v. p. 482; For. Fl. Burma, ii. p. 472.

Chiengmai, in scrub jungle on banks of Meh Ping, 300 m., *Kerr*, 1889.

Distr. India, Burma, Assam.

Trema amboinensis, *Blume*—F.B.I., v. p. 484; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 126; Williams, Bull. Herb. Boiss., iv. (1904) p. 1030. *T. orientalis*, Blume, var. *amboinensis*, Kurz, For. Fl. Burma, ii. p. 469.

Chiengmai, in evergreen jungle on Doi Sootep, 600–900 m., *Kerr*, 628, 1293; Phre, Hooey Kamin, 180 m., *Luang Vanpruk*, 208.

Distr. Sikkim, Assam southwards to Malaya.

Lao name, Paw Fan (ex *Luang Vanpruk*).

Streblus asper, *Lour.*—F.B.I., v. p. 489; For. Fl. Burma, ii. p. 464; Williams, Bull. Herb. Boiss., iv. (1904) p. 1029.

Meh Teng, Ban Pou, 390 m., *Kerr*, 1061; Bangkok, *Schomburgk*, 146, *Gould*, *Zimmermann*, 91.

Distr. E. Asia.

Lao name, Koi (ex *Kerr*).

Broussonetia papyrifera, *Vent.*—F.B.I., v. p. 490; For. Fl. Burma, ii. p. 467.

Phre, 120–180 m., *Luang Vanpruk*, 139 ♂; between Lakon and Phre, near Pang Pooey, 420 m., *Kerr*, 1000 ♀.

Distr. E. Asia, Pacific Is.—often cultivated.

Lao name, Mai Sah (ex *Kerr*).

Allaeanthus Kurzii, *Hook. f.*, F.B.I., v. p. 490. *Malaisa tortuosa*, Kurz, For. Fl. Burma, ii. p. 466, *non* Blume.

Doi Saket, Ban Sun Pah Suk, 600 m., *Kerr*, 970 a ♂; Lakon, Pak Kaung Nai, 300 m., *Kerr*, 970 ♀.

Distr. Burma, Assam.

Lao name, ♂ Dauk Sā Laa: ♀ Mai Sā Laa (ex *Kerr*).

Morus laevigata, *Wall.*—F.B.I., v. p. 492; For. Fl. Burma, ii. p. 467; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 126.

Phre, 120–240 m., *Luang Vanpruk*, 193; Chiengmai, in evergreen jungle on Doi Sootep, 660 m., *Kerr*, 1736. ? Bangkok, *Schomburgk*.

Distr. Himalayas, Burma, Assam.

Lao name, Mawn (ex *Luang Vanpruk*).

Ficus crininervia, *Miq.*—F.B.I., v. p. 529; King, Ann. Roy. Bot. Gard. Calc., i. p. 138, t. 173.

Chiengmai, creeping over rocks by a stream on Doi Sootep, 390 m., *Kerr*, 1240.

Distr. Assam.

Ficus fistulosa, *Reinw.*—F.B.I., v. p. 525; For. Fl. Burma, ii. p. 459, pro parte; King, Ann. Roy. Bot. Gard. Calc., i. p. 114, tt. 150, 151; Williams, Bull. Herb. Boiss., iv. (1904) p. 1029.

Chiengmai, on old clearing on Doi Sootep, 750 m., *Kerr*, 1793; Koh Chang, *Schmidt*, 796.

Distr. Bengal, Assam, Malaya.

Ficus heterophylla, *Linn. f.*—F.B.I., v. p. 518; For. Fl. Burma, ii. p. 456; King, Ann. Roy. Bot. Gard. Calc., i. p. 75, t. 94.

Chiengmai, banks of Meh Ping, 300 m., *Kerr*, 1898.

Distr. S.E. Asia.

Kerr's plant belongs to var. *repens*, King.

Ficus hirta, *Vahl*—F.B.I., v. p. 531; For. Fl. Burma, ii. p. 449; King, Ann. Roy. Bot. Gard. Calc., i. p. 149, t. 188.

Chiengmai, in evergreen jungle on Doi Sootep, 900 m., *Kerr*, 701.

Distr. S.E. Asia.

Ficus hispida, *Linn. f.*—F.B.I., v. p. 522; For. Fl. Burma, ii. p. 460; Williams, Bull. Herb. Boiss., iv. (1904) p. 1029; King, Ann. Roy. Bot. Gard. Calc., i. p. 116, tt. 154, 155.

Common along rivers in Lower Siam, *Witt*, 41.

Distr. S.E. Asia, Australia.

Ficus laevis, *Blume*—F.B.I., v. p. 526; King, Ann. Roy. Bot. Gard. Calc., i. p. 128, t. 161.

Chiengmai, on edge of old clearing on Doi Sootep, 660 m., *Kerr*, 1203; in evergreen jungle by a stream, 900 m., *Kerr*, 1739.

Distr. Himalayas, Assam, Tonkin, Malaya.

Ficus obtusifolia, *Roxb.*—F.B.I., v. p. 507; For. Fl. Burma, ii. p. 443; King, Ann. Roy. Bot. Gard. Calc., i. p. 42, tt. 49, 84g; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 127.

Chiengmai, Doi Sootep, 450–660 m., *Kerr*, 517, 1783.

Distr. E. Himalayas, Assam, Burma, Perak.

Ficus pyriformis, *Hook. et Arn.*, var. **ischnopoda**, *King*, F.B.I., v. p. 533, Ann. Roy. Bot. Gard. Calc., i. p. 158, t. 201c; Williams, Bull. Herb. Boiss., iv. (1904) p. 1030; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 126.

Chiengmai, on edge of marshy ground on Doi Sootep, 300 m., *Kerr*, 717; Koh Chang, Klong Majum, *Schmidt*, 617a.

Distr. Khasia, Burma, Malaya.

Ficus saemocarpa, *Miq.*—F.B.I., v. p. 523; King, Ann. Roy. Bot. Gard. Calc., i. p. 115, t. 152. *F. pyrrhocarpa*, Kurz, For. Fl. Burma, ii. p. 457.

Chiengmai, by edge of mountain streams on Doi Sootep, 720–1200 m., *Kerr*, 592.

Distr. Himalayas, Assam, Burma.

Lao name, Dooa hohey (ex *Kerr*).

Kerr's plant is identical with the type of *F. pyrrhocarpa*, Kurz in Herb. Kew.

Ficus scandens, *Roxb.*—F.B.I., v. p. 526; For. Fl. Burma, ii. p. 455; King, Ann. Roy. Bot. Gard. Calc., i. p. 129, t. 162.

Chiengmai, Doi Sootep, in evergreen jungle, 900 m., *Kerr*, 1829.

Distr. N. India, Assam, Burma.

Urticaceae.

Fleurya interrupta, *Gaud.*—F.B.I., v. p. 548.

Chiengmai, 300 m., *Kerr*, 1345—"a garden weed."

Distr. Abyssinia, E. Asia, Pacific Is.

Girardinia heterophylla, *Dene.*—F.B.I., v. p. 550.

Chiengmai, Doi Sootep, 1500 m., *Kerr*, 1106.

Distr. India, Burma, Assam, Java, Trop. Africa.

Elatostemma sessile, *Forst.*—F.B.I., v. p. 563; Hosseus, ii. p. 385.

Pahombuk, 2300 m. (ex *Hosseus*).

Distr. Tropical Asia, Africa.

Pilea anisophylla, *Wedd.*—F.B.I., v. p. 552. *P. smilacifolia*, Hosseus, ii. p. 385, *vix* Wedd.

Chiengmai, Doi Sootep, *Hosseus*, 199.

Distr. Himalayas, Assam, (? Yunnan).

Pilea sp.—♂ only.

Chiengmai, Doi Sootep, in evergreen jungle, 1650 m., *Kerr*, 1323.

Pellionia bulbifera, *Hook. f.*, F.B.I., v. p. 560.
Chiengmai, Ban Pong, on rocks in mixed jungle, 330 m., *Kerr*, 1941.
Distr. Burma.

Pellionia Daveauana, *N. E. Brown*, var. viridis, *N. E. Brown*.
Chiengmai, creeping over rocks and humus near a stream on Doi Sootep, 660 m., *Kerr*, 1277.
Distr. Cochinchina.

Boehmeria macrophylla, *Don*—F.B.I., v. p. 577 ; For. Fl. Burma, ii. p. 424.
Chiengmai, Doi Sootep, 660 m., *Kerr*, 865.
Distr. Himalayas, Burma, Assam.

Pouzolzia indica, *Gaud.*, var. angustifolia, *Wedd.*—F.B.I., v. p. 581.
Chiengmai, in scrub jungle, banks of Meh Ping, 300 m., *Kerr*, 1886.
Distr. (of *var.*). Malaya.

Pouzolzia pentandra, *Benn.*—F.B.I., v. p. 583 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 127.
Chiengmai, Doi Sootep, 330 m., *Kerr*, 1914.
Distr. Afghanistan to China and southwards to Malay Archipelago.

Pouzolzia viminea, *Wedd.*—F.B.I., v. p. 581 ; For. Fl. Burma, ii. p. 425 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 127.
Chiengmai, Doi Sootep, 660–960 m., *Kerr*, 1255, 1276.
Distr. India, S. China, Indo-China, Malaya.

Debregeasia longifolia, *Wedd.* *D. velutina*, Wedd.—F.B.I., v. p. 590. *Morocarpus longifolius*, Blume—For. Fl. Burma, ii. p. 428.
Chiengmai, Doi Sootep, in evergreen jungle, 1650 m., *Kerr*, 1506.
Distr. S.E. Asia.

Villebrunea integrifolia, *Gaud.*, var. sylvatica, *Hook. f.*, F.B.I., v. p. 590. *Oreochnide sylvatica*, Miq.—For. Fl. Burma, ii. p. 427.
Chiengmai, in evergreen jungle by a stream on Doi Sootep, 900 m., *Kerr*, 1158.
Distr. India, Burma, Assam, Malaya.

Juglandaceae.

Engelhardtia aceriflora, *Blume*—F.B.I., v. p. 596.
Chiengmai, Doi Sootep, in evergreen jungle, 750–1050 m., *Kerr*, 955.
Distr. E. Himalayas, Yunnan, Malay Archipelago.
Lao name, Pah Hoht (ex *Kerr*).

Engelhardtia Colebrookiana, *Lindl.*—F.B.I., v. p. 596 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 127. *E. villosa*, Kurz, For. Fl. Burma, ii. p. 491.
Phre, 156–240 m., *Luang Vanpruk*, 115.
Distr. Himalayas, China, Indo-China, Java.
Probably only a variety of the next species.

Engelhardtia spicata, *Blume*—F.B.I., v. p. 595; For. Fl. Burma, ii. p. 491; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 128; Hosseus, ii. p. 383.

Chiengmai, Doi Sootep, 330–700 m., *Kerr*, 531, *Hosseus*, 303.

Distr. N. India, Indo-China, Java.

Betulaceae.

Carpinus Londoniana, *H. Winkler*, Engler Pflanzenr., Betulaceae, p. 32, vel ei valde affinis.

Chiengmai, Doi Sootep, by stream in oak jungle, 660 m., *Kerr*, 511.

Distr. Yunnan.

Cupuliferae.

Quercus fenestrata, *Roxb.*—F.B.I., v. p. 608; For. Fl. Burma, ii. p. 483; King, Ann. Roy. Bot. Gard. Calc., ii. p. 45, t. 39.

Chiengmai, in open grassy jungle on Doi Sootep, 1560 m., *Kerr*, 1320; ? in open jungle, 1350 m., *Kerr*, 708 (very young fruit).

Distr. E. Himalayas, Burma, Assam.

Kerr, 1086 (in flower) is probably allied to this species.

Quercus Garrettiana, *Craib*, *Q. Skanianae*, Dunn, facie similis sed cupularum squamis haud parvis haud adpressis facile distinguenda.

Arbor 9-metralis (ex *Kerr*); ramuli dense fulvo-tomentosi. *Folia* oblanceolata vel oblongo-oblanceolata, apice acuminata, acuta, basi attenuata, 8–22·5 cm. longa, 2·6—5·8 cm. lata, subcoriacea, margine integro recurvo, supra primo, costa densius, pilosula, mox glabra vel subglabra nisi costa tomentella, subtus parce pubescentia, nervis lateralibus utrinque 12–13 supra conspicuis subtus prominentibus nervis transversis subtus prominulis; petioli ad 1·3 cm. longi, indumento ut ramuli. *Spicae* ♀ rigidae, erectae, rhachi fulvo-tomentella, ♂ haud visae. *Cupulae* sessiles, confertae; involucri squamae basi connatae, subulatae, circiter 5 mm. longae, reflexae, adpresse pubescentes. *Glans* fere omnino inclusa, ovoideo-conica, apiculata, circiter 1·3 cm. alta, 1–1·2 cm. diametro, glabra.—*Craib*, Kew Bull. 1911, p. 471.

Chiengmai, Doi Sootep, 600–750 m., *Kerr*, 1185, 1185a.

Quercus incana, *Roxb.*—F.B.I., v. p. 603; King, Ann. Roy. Bot. Gard. Calc., ii. p. 26, t. 20; Hosseus, ii. p. 384.

Doi Chieng Dao, 2000–2200 m. (ex *Hosseus*).

Distr. Himalayas, Upper Burma.

Quercus Junghuhnii, *Miq.*—King, Ann. Roy. Bot. Gard. Calc., ii. p. 78, t. 73; Hosseus, ii. p. 384.

Chiengmai, Doi Sootep, 900–1200 m., *Kerr*, 817, *Hosseus*, 307.

Distr. Java, Formosa.

Lao name, Makaw Dohey (ex *Kerr*).

The nut is eaten and greatly esteemed by the natives (*Kerr*, Kew Bull. 1911, p. 5).

Quercus (Cyclobalanopsis) Kerrii, *Craib*, a *Q. velutina*, Lindl., foliis majoribus haud acute acuminatis nervis lateralibus ad marginem subrectis haud curvatis recedit.

Arbor mediocris (ex *Kerr*); ramuli primo valde sulcati, dense fulvo-tomentosi, indumento diu persistente, mox teretes. *Folia* lanceolata, oblonga vel oblongo-lanceolata, apice obtusa, basi interdum inaequalia, cuneata vel subrotundata, 9–23·5 cm. longa, 3–7·5 cm. lata, subcoriacea, juvenilia utrinque dense tomentosa, supra costa fulva excepta purpurea, matura utrinque, costa subtus nonnunquam flocculenta excepta, glabra, nervis lateralibus utrinque 14 ad marginem subrectis supra conspicuis subtus prominentibus nervis transversis subprominulis, margine, parte basali integra excepta, serrata vel crenato-serrata; petioli 1–1·8 cm. longi, indumento ramulorum; stipulae fugaces, ad 1 cm. longae. *Spicae* ♂ ad ramorum apices confertae; bracteae lineares, acutae, 3 mm. longae, 0·75 mm. latae, dorso adpresse pubescentes, ciliatae. *Filamenta* brevia; antherae hirsutiusculae. *Spicae* ♀ in ramulis axillares, solitariae. *Cupulae* sessiles, patelliformes, ad 8 mm. altae, 2·2 cm. diametro, extra conspicue adpresse pubescentes; lamellae circiter 8, denticulatae. *Glans* (an matura?) ad 7 mm. alta, vix 2 cm. diametro, apice depressa, apiculata, vix glabra.—*Craib*, Kew Bull. 1911, p. 471.

Chiengmai, in deciduous jungle on lower slopes of Doi Sootep, 300–600 m., *Kerr*, 550; Doi Sootep, 1000 m., *Hosseus*, 438.

Distr. ? Martaban, *Kurz*, 996.—There is no fruit attached to this specimen, which, except that the leaves are rather longer cuneate at the base agrees well with the Siamese plant.

From *Q. Helferiana* and *Q. Brandisiana* the plant described above is readily distinguished by the lateral leaf nerves which are narrow and subprominent on the upper surface, and by the narrow costa which is not depressed.

Hosseus, ii. p. 385, records "*Quercus oidocarpa*" and quotes his 458 as belonging to that species. This may be a misprint for 438 as 458 is *Vernonia Parishii*.

Quercus (Lepidobalanus) Kingiana, *Craib*, a *Q. incana*, Roxb., foliis subtus parce stellato-pubescentibus marginibus a medio apicem versus plus minusve crasse dentato-serratis distinguenda.

Arbor mediocris (ex *Kerr*); ramuli juventute dense fulvo-tomentelli, mox glabri, cortice lenticellato. *Folia* oblonga vel obovato-oblonga, apice obtusa, basi inaequalia, truncata vel obtuse cuneata, 5·5–14·7 cm. longa, 3–7·2 cm. lata, fere a medio apicem versus crasse dentato-serrata, juvenilia supra parce fulvo-pilosula, subtus densius stellato-pubescentia, matura rigide chartacea, supra glabra, subtus parce stellato-pubescentia, nervis lateralibus utrinque 10–11 supra sicco subprominulis subtus prominentibus nervis transversis uti reticulatione gracili utrinque conspicuis; petioli ad 2 cm. longi, tomentelli; stipulae lineari-oblanceolatae, vix 1 cm. longae, dorso sericeae. *Spicae* ♂ ad ramorum apices confertae; bracteae 1·5 mm. longae, ciliatae; perianthium 1·5 mm. altum, lobis apice rotundatis; filamenta perianthio subaequalia, glabra, antheris 1·25 mm. longis. *Cupulae* sessiles, circiter 1·5 cm. altae, 2 cm. diametro, squamis dorso subsericeis nisi apice subglabris. *Glans* (vix matura) inclusa.—*Craib*, Kew Bull. 1911, p. 472.

Chiengmai, Doi Sootep, in open jungle, 750–900 m., *Kerr*, 956, 1284.

Lao name, Kau Tum Moo (ex *Kerr*).

Closely allied to this species is *Hosseus*, 300, from Doi Sootep, 1300–1500 m. which is represented at Kew by flowering material only and which Hosseus, ii. p. 384, refers to " *Q. lineata*, Bl. aff. " and also to " *Q. incana*, Roxb. aff."

Quercus Lindleyana, *Wall.*—F.B.I., v. p. 607 ; For. Fl. Burma, ii. p. 486 ; King, Ann. Roy. Bot. Gard. Calc., ii. p. 39, t. 55 ; Coll. et Hemsl., Journ Linn. Soc., xxviii. p. 128 ; Hosseus, ii. p. 384.

Chiengmai, Doi Sootep, 840–1500 m., *Kerr*, 1163, 1965, *Hosseus*, 625.

Distr. Burma.

Quercus polystachya, *Wall.*—F.B.I., v. p. 610 ; For. Fl. Burma, ii. p. 485 ; King, Ann. Roy. Bot. Gard. Calc., ii. p. 50, t. 44 ; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 128. *Q. bancana*, Kurz, For. Fl. Burma, ii. p. 485, *non* Scheff. (fide *King*).

Chiengmai, in eng jungle on Doi Sootep, 300 m., *Kerr*. 796.

Distr. Burma, Yunnan, Hong Kong.

Quercus semiserrata, *Roxb.*—F.B.I., v. p. 604 ; For. Fl. Burma, ii. p. 488 ; King, Ann. Roy. Bot. Gard. Calc., ii. p. 68, t. 22.

Chiengmai, Doi Sootep, in evergreen jungle, 900 m., *Kerr*, 1113, 1644.

Distr. Burma, Assam.

Quercus (**Cyclobolanus**) **sootepensis**, *Craib*, a *Q. Cuntleyana*, King, fructibus semper solitariis pedicellis longioribus gracilioribus suffultis, rhachi tenuiore tomentella recedit.

Arbor mediocris (ex *Kerr*), ramulis cortice brunneo vel griseo-brunneo obtectis. *Folia* elliptica, anguste elliptica vel oblongo-ovata, apice caudata, obtusa, basi cuneata vel subrotundata, 9–17·5 cm. longa, 4·2–8·6 cm. lata, subcoriacea, utrinque glabra, nervis lateralibus utrinque 9–11 supra conspicuis subtus prominentibus nervis transversis utrinque conspicuis costa utrinque prominente ; petioli circiter 1·5 cm. longi, glabri. *Paniculae* ♀ et terminales et in axillis supremis, rhachi tomentella, ♂ non visae. *Cupulae* patelliformes, circiter 4 mm. altae, 1·6 cm. diametro, indistincte zonatae ; pedicelli ad 8 mm. longi, medio 2·5 mm. diametro. *Glans* depresso-globosa, apiculata, 1·5 cm. alta, 1·7 cm. diametro, vix glabra.—*Craib*, Kew Bull. 1911, p. 472.

Chiengmai, Doi Sootep, in rather open jungle, 900 m., *Kerr*, 780.

Probably a younger state with glans more elongate is represented by *Kerr*, 1312 from Doi Sootep, 660 m.

Quercus ? spicata, *Smith*—F.B.I., v. p. 609 ; For. Fl. Burma, ii. p. 486 ; King, Ann. Roy. Bot. Gard. Calc., ii. p. 47, t. 41.

Phre, 120–180 m., *Luang Vanpruk*, 164—specimen in bud only, leaves very large.

Distr. Himalayas, Burma, Assam, Malaya.

Quercus Thomsoni, *Miq.*—F.B.I., v. p. 615 ; King, Ann. Roy. Bot. Gard. Calc., ii. p. 73, t. 69a.

Chiengmai, in deciduous jungle by a stream on Doi Sootep, 480 m., *Kerr*, 1261.

Distr. Burma, Khasia.

Quercus truncata, *King*, F.B.I., v. p. 618 et Ann. Roy. Bot. Gard. Calc., ii. p. 84, t. 80.

Chiengmai, in open jungle on Doi Sootep, 900 m., *Kerr*, 1285.

Distr. Assam.

To this species probably also belong *Kerr*, 1191 and 1285a, both from Doi Sootep, 900 m., the former in flower and the latter with the glans not always enclosed in the cupule.

Castanopsis argyrophylla, *King*, F.B.I., v. p. 622 et Ann. Roy. Bot. Gard. Calc., ii. p. 100, t. 85b.
Chiengmai, Doi Sootep, 660 m., *Kerr*, 1303 (fruit immature).
Distr. Burma.

Castanopsis? diversifolia, *King*, F.B.I., v. p. 620 et Ann. Roy. Bot. Gard. Calc., ii. p. 96, t. 85a. *Castanea diversifolia*, Kurz, For. Fl. Burma, ii. p. 479.
Chiengmai, Doi Sootep, 990–1650 m., *Kerr*, 1283, 1769, *Hosseus*, 500.
Distr. Burma.
This species is represented in Herb. Kew by two leaf specimens of Kurz's types. The Siamese plants differ from these in their much smaller leaves, but agree with King's figure quoted above.

Castanopsis indica, *DC.*—F.B.I., v. p. 620; King, Ann. Roy. Bot. Gard. Calc., ii. p. 94, t. 83; Hosseus, ii. p. 384. *Castanea indica*, Roxb.—For. Fl. Burma, ii. p. 478.
Chiengmai, Doi Sootep, 660–1200 m., *Kerr* 1520, *Hosseus*, 420.
Distr. Himalayas, Assam, Chittagong.

Salicaceae.

Salix pyrina, *Wall.*—Hosseus, ii. p. 383.
Chiengmai, Doi Sootep, 700 m. (ex *Hosseus*).

Salix tetrasperma, *Roxb.* F.B.I., v. p. 626; For. Fl. Burma, ii. p. 493; Coll. et Hemsl., Journ. Linn. Soc., xxviii. p. 129.
Doi Intanon, 800 m., *Hosseus*, 360; sine loco, *Kerr*, 1612a.
Distr. S.E. Asia.
Hosseus, ii. p. 383, refers his 360 to *S. tetrasperma* var. *nilagirica*.

ADDENDUM.

The following list of the more recent literature dealing with the Flora of Siam (excluding the Siamese Malay States) while not pretending to be complete may prove useful. The arrangement is alphabetical.

Craib, W. G., "List of Siamese Plants with descriptions of new species," Kew Bull. 1911, pp. 7–60 and 385–474.
Hosseus, C. C., "Beiträge zur Flora des Doi Sutäp," Engler Bot. Jahrb., xl. Beibl. 93 (1908) pp. 92–99.
Hosseus, C. C., "Beiträge zur Flora Siams," Bot. Centralbl. Beihefte, xxvii. 2 (1910) pp. 455–507.
Hosseus, C. C., "Beiträge zur Flora von Wang Djao am Mä Ping in Mittel-Siam," Engler Bot. Jahrb., xlv. (1911) pp. 366–374.
Hosseus, C. C., "Das Teakholz in Siam," Tropenpflanzer, viii. Beihefte 5 (1907) pp. 378–391.

Hosseus, C. C., "Der Reisbau in Siam," Tropenpflanzer, xv. (1911) pp. 303–318.

Hosseus, C. C., "Die aus Siam bekannten Acanthaceen," Engler Bot. Jahrb., xli. (1907) pp. 62–73.

Hosseus, C. C., "Die Bedeutung der Bambusstaude auf Grund eigener Studien in Siam," Archiv für Anthropologie, x. (1911) pp. 55–73.

Hosseus, C. C., "Die botanischen Ergebnisse meiner Expedition nach Siam," Bot. Centralbl. Beihefte, xxviii. 2 (1911) pp. 357–457.

Hosseus, C. C., "Die Gewinnung des Teakholzes und seine Bedeutung auf dem Weltmarkte," Jahresbericht der Vereinigung der Vertreter der angewandten Botanik, iv. (1907) pp. 40–50.

Hosseus, C. C., "Die Vegetation und die Nuthölzer Siams," Oester. Forst- und Jagd-zeitung, No. 30 and 36 (1910).

Hosseus, C. C., "Eine neue Rafflesiaceengattung aus Siam," Engler Bot. Jahrb., xli. (1907) pp. 55–61.

Hosseus, C. C., "Vegetationsbilder aus Siam," Globus, xcvi. (1909) No. 10, pp. 149–152 and 11, pp. 167–170.

Hosseus, C. C., "Zwei interessante Neuheiten aus Siam in Kgl. Bot. Garten zu Dahlem," Notizbl. Bot. Gart. Berl., iv. (1907) pp. 314–318.

Kerr, A. F. G., "Sketch of the Vegetation of Chiengmai," Kew Bull. 1911, pp. 1–6.

Lecomte, H., "Flore generale de l'Indo-Chine"—in course of publication.

Ostenfeld, C. H., "A list of plants collected in the Raheng district, Upper Siam, by Mr. E. Lindhard," Bull. Herb. Boiss., v. (1905) pp. 709–724.

Ryan and Kerr, A. F. G., "Dipterocarpaceae of Northern Siam," Journ. Siam Soc., viii. (1911) pp. 1–24.

Schmidt, J., "Flora of Koh Chang," Bot. Tidsskr., 1900–1902, 1904, 1909—not yet completed.

Schmidt, J., "Le vegetation de l'île Koh-Chang," Bull. Soc. Geogr. Paris, 1903, pp. 275–290.

Williams, F. N., "Liste des Plantes connues du Siam," Bull. Herb. Boiss., 1904–5.

Williams, F. N., "The Botany of Siam," Journ. Bot., 1903, pp. 306–309.

Besides the above there are to be found in various other publications *e.g.* Fedde, Rep. Nov. Sp., Lecomte, Notulae Syst., &c. descriptions of new species from Siam and references to plants collected in Siam.

INDEX TO GENERA.

Names in *italics* are those of genera merely mentioned, appearing only as synonyms or quoted as synonyms under other genera.

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